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POLYENIC ANTIFUNGAL ANTIBIOTICS: SYSTEMATICS OF PRODUCERS

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Headline: Polyenes: Systematics of Producers

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POLYENIC ANTIFUNGAL ANTIBIOTICS: SYSTEMATICS OF PRODUCERS

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Polyenic antifungals continue to elicit the interest of antibiotic researchers because of their high activity against yeasts and molds and because there is continuing need for nontoxic, systemic antifungals for medical or nonmedical purposes. Consequently, a study was made to clarify some of the confusing nomenclature associated with these materials, as well as to summarize and update the systematics of the producing microorganisms. Based on available information, a key has been prepared by which some strains producing documented materials can be identified. Hopefully, this key brings the systematics of the producing microorganisms into a better perspective.

Although much chemical and physical data on polyene antifungal antibiotics has been brought together, collated, and reviewed with periodic publication (Akai et al., 1956, 1963; Berdy, 1974; Boyd, 1961; Drouhet, 1963; Dutcher, 1968; Hamilton-Miller, 1973; Khokhlova et al., 1966; Kinsky, 1967; Klimov and Litvinova, 1968; Mechliniski, 1973; Misato and Yonehara, 1968; Oroshnik and Mebane, 1963; Perlman, 1967; Vining, 1960; Waksman et al., 1965; and Yajima, 1955), there has been no extensive study published on the systematics of the microorganisms which produce these interesting materials other than the review of Arai and Mikami

(1969) which includes both polyenic and nonpolyenic antifungal antibiotic producers.

Current information indicates that screening for polyenic antifungal antibiotics still is underway, new ones continue to be announced, and new techniques have been developed in efforts to exploit their remarkable antiyeast, antimold, and antiprotozoal activity. Perlman (1970) has indicated that one of the antibiotic needs of the future is for less toxic, systemic antifungals. Conover (1971) has listed eight useful antifungal antibiotics. Of these, six are polyenes: amphotericin B, candicidin, hamycin, nystatin, pimaricin, and trichomycin. Conover further states that microbial metabolites as antifungal drugs will play a continuing major role in chemotherapy. New uses, including use of various derivatives, have been discovered for polyene antibiotics, e.g., treatment of acne, reduction of sperm levels in a male host, virucidal activity, alteration of lipid metabolism, control of prostate hypertrophy, and effect on absorption of sterols (Bonner et al., 1972, 1973; Bruzzese et al., 1972; Chirigos et al., 1973; Dahlberg et al., 1973; Fisher et al., 1973; Fu et al., 1973; Gordon, 1973; Gordon and Schaffner, 1971, 1973, 1974; Julius Schmid Inc., 1970; Lechevalier et al., 1961; Mechlinski and Schaffner, 1972; Muftic, 1968; Schaffner and Borowski, 1961; Schaffner and Gordon, 1974; Schaffner and Mechlinski, 1972; Siegel et al., 1973; and Vandeputte, 1973). Accordingly, it is apparent that interest in polyenic antifungal antibiotics will continue.

The number of polyenic antifungal antibiotics reported in the literature is quite large and growing. Some of these are referred to only incidentally with little or no information on isolation, purification, and characterization. Many have not been named but have been given letter and number designations. Some have been renamed a number of times for various reasons. It is apparent that quite a few initially are regarded or represented as single entities. However, continued chemical and physical study points out that original presumed single entities are, in fact, complexes or mixtures. For example, filipin, originally indicated as a single entity, now must be considered a complex of at least 15 separate pentaenic components (Bergy and Eble, 1968), and the recently reported antibiotic DJ-400 complex consists of at least 12 heptaenic components (Siewert and Kieslich, 1971). Consequently, as has happened with the terms "actinomycin," and "streptothricin," the use of some polyene names, e.g., "filipin," "hamycin," "trichomycin," and "candididin" has lost some precision of meaning.

The production of polyene antifungal antibiotics appears to represent a unique property of strains of streptomycetes and streptovercillia among the bacteria. We have found documentation for the biosynthesis of such compounds by strains of only four other genera of Actinomycetales. Of these genera, Chainia Thirumalachar already has been transferred to the genus Streptomyces Waksman and Henrici (Pridham, 1970). Chainia has been a controversial genus since its proposal. Despite the controversy, chainiae, if not streptomycetes per se, are very closely related to

these organisms. (See Lechevalier et al., 1973 and Cross and Goodfellow, 1973). The strains of Actinosporangium producing genimycin and hepcin (Severinets et al., 1970; Tsyganov et al., 1971) are in similar controversial positions as Chainia.

And, Kitasatoa Matsumae et al. (Matsumae et al., 1968) contains a species K. kauaiensis Matsumae et al. which reportedly is characterized by the formation of sporangia containing monoflagellate zoospores. Our examination of strains of several species of this genus indicates marked resemblance to streptomycetes. The results of cell-wall analyses show the presence of L-diaminopimelic acid, and we suspect other analyses will show absence of arabinose, galactose, and mycolic acids, absences characteristic of streptomycetes and streptovercillia. It may be that Matsumae and his colleagues have discovered another streptomycete exhibiting a homothallic sexual stage much as Nakazawa has reported for Streptomyces sindenensis Nakazawa and Fujii (Nakazawa, 1966). In any event, Kitasatoa kauaiensis, strains I-377 and KA-281 have been found to produce the hexaene antifungal polyene fradycin, along with chloramphenicol, bottromycin A₂, and bottromycin B (Abe and Hata, 1968; Matsumae et al., 1968; Hata et al., 1972; Matsumae, 1974).

The fourth presumed non-streptomycete, non-streptovercillium taxon for which production of a polyenic antifungal antibiotic is reported is Actinoplanes caeruleus, strain NRRL 5325 (Wagman et al., 1974). It would be of interest to learn the results of cell-wall compositional analyses for this strain in view of our comments below.

Also, it is of interest to note that not all polyenes produced by Actinomycetales exhibit antifungal activity as their principal activity. Thus, limocrocin, a heptaene produced by Streptomyces limosus Lindenbein (Brockmann and Grothe, 1953; Brockmann and May, 1955; Brockmann et al., 1969); ochramycin, an octaene produced by Streptoverticillium orinoci Cassinelli et al. (Cassinelli et al., 1966); tetrenolin, a tetraene produced by Micropolyspora venezuelensis Thiemann (Gallo et al., 1969); and oleficin, produced by Streptomyces parvullus Waksman and Gregory (Gyimesi et al., 1971) all are unique in that they exhibit activity primarily against Gram-positive bacteria and not against molds or yeasts. So far as we have determined, no other bacteria produce polyene antifungals. The one exception is a triene reportedly produced by a non-Actinomycetales, Bacillus licheniformis subsp. mesentericus (Nesemann et al., 1972).

One might speculate that, somehow, the production of these antifungal polyenes may be related to the unusual cell-wall composition of the producing agents, i.e., the presence of L-diaminopimelic acid and absence of mycolic acids. Most other bacteria contain the meso and/or D isomer of diaminopimelic acid.

We have been accumulating data on the producers of antifungal polyene antibiotics for some time and have been collating the information. As a start in analyzing the systematics concerned, we have categorized the producing organisms into species based on concepts advanced in Pridham et al. (1965), Pridham and Lyons (1969), and Pridham (1974). These concepts involve, at a minimum, only the determination of ornamentation

of spore walls or spore sheaths by transmission electron microscopy and determination of morphology of chains of spores for speciation. Further characterization, the results of which are subject to a greater degree of variation, includes determination of the chromogenic nature (formation of brown, deep brown, or black diffusible pigments) of strains; determination of the ability of strains to use selected carbon compounds for growth in a chemically defined medium; and determination of the color of mature sporulating aerial mycelium of strains in that order of confidence and reliability. We believe these three latter criteria are best used as aids in establishing or determining subspecies. Antibacterial antibiotic identities and associated antifungal antibiotic identities seem to provide the most precise information that can be used effectively in collating other characteristics to arrive at the most accurate specific and subspecific identifications. Except for antibiotic identification, these criteria mentioned are most of those used in the International Streptomyces project.

After much laboratory and literature study, we seriously doubt that the degree of precision, reproducibility, and accuracy implied in published keys and descriptions can be used in a practical and meaningful way. Many of the so-called "differences" based on morphology, cultural characteristics, and physiological characteristics that have been used to establish "new species" most likely are expressions of variation within a species or subspecies. The main problem, in our view, is the development of rapid, simple, and accurate methods to precisely identify

antibacterial antibiotic(s) produced by given strains. As an additional criterion, identification of antifungal antibiotics produced by given strains is helpful. In a continued attempt to resolve the main problem, we have carried out a literature and laboratory study of a number of strains reported to produce polyenic antifungal antibiotics. The non-availability of strains and lack of information on antibacterial antibiotic identities has hampered effective collation of data. Nevertheless, we believe the key to species (Table 3) presents information that can be used more effectively and precisely than has been the case in the past. We are endeavoring to fill in the missing information as rapidly as strains and information are obtained. It should be noted that, most likely, quite a few of the strains referred to in Table 1 have been discarded or lost and definitive information on their systematics or on the precise chemical nature of the compounds produced may never be obtained.

Numerous polyene antibiotics are documented in the literature (Table 1). Many have been given only letter and/or number designations. It is apparent that a great many strains producing named polyene antibiotics also exhibit antibacterial activity. Many of these activities remain to be identified. Although the producing strains can be assigned specific epithets based on our concepts, they cannot be assigned to subspecies until more precise information on the nature of the antibacterial activities is obtained.

Table 1 is a list of the documented polyeneic antifungal antibiotics arranged in alphabetical order along with other pertinent information. Table 2 is an analysis of most of the named polyenes with reference to their production by particular species of streptomycetes and streptovercillia as set forth in Pridham (1974). Table 3 is a key to identification of the producing microorganisms based on the latest available data obtained from the literature and from our laboratory studies.

Tables 1-3

TABLE 1. Polyene antifungal antibiotics

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
akitamycin	single entity	tetraene	<u>akitaensis</u>	Fujita (1959a, 1959b); Ishibashi (1957a, 1957b, 1960); Soeda and Fujita (1959a, 1959b).
albotetraen				See albotetren.
albotetren	mixture (2)	tetraene	?	Kotenko et al. (1970); Tsyganov et al. (1973).
aliomycin	single entity	pentaene	<u>acidomyceticus</u>	Grundy et al. (1952); Igarashi et al. (1956).
aminomycin				See perimycin.
amphotericin				See amphotericin A and amphotericin B.
amphotericin A	single entity	tetraene	<u>nodosus</u>	Dutcher et al. (1959a); Sternberg et al. (1956); Trejo and Bennett (1963).
amphotericin B	single entity	heptaene	<u>nodosus</u>	Dutcher et al. (1959a); Sternberg et al. (1956); Trejo and Bennett (1963).

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
amphotericin				<u>Lapsus calami</u> for <u>amphotericin</u> .
0570*				See hexaene 0570, plumbomycin A and plumbomycin B.
0579-II				See tbilimycin.
0677				See hexaene 0677 and tetramedin.
0704				See levorin A ₂ .
9/1 or 9/2				See pentaene 9/1 or 9/2.
11				See capacidin.
11-1				See tetraene 11-1
1				See tetraene 1 of <u>Katagiri et al.</u>
				continued--

* Materials initially assigned number designations may be accompanied by one or more of the following prefixes:
 "antibiotic," "preparation," "material," "compound," or "substance." For this compilation these prefixes have
 been changed, where possible, to indicate the general polyenic classification of the antibiotic, e.g., "hexaene
 0570."

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
2				See tetraene 2 of Katagiri et al.
17-41B				See pentaene 17-41B and heptaene 17-41B.
9-27				See tetraene 9-27.
9-48				See tetraene 9-48.
18-45				See tetraene 18-45.
18-71				See tetraene 18-71.
18-80				See tetraene 18-80.
18-A2-I				See heptaene 18A2-I and hexaene 18A2-I.
18A2-II				See heptaene 18A2-II and hexaene 18A2-II.
18A2-III				See hexaene 18A2-III.
18A2-IV				See hexaene 18A2-IV.
26/1 or 26/I				See levorin A ₀ , levorin A ₁ , levorin A ₂ , levorin A ₃ and, levorin B.

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
28				See levorin A ₀ , levorin A ₁ , levorin A ₂ , levorin A ₃ , and levorin B.
32				See candidin.
44B/1				See mycoheptin, pentaene 44B/1, and tetraene 44B/1.
44V/1				See mycoheptin, pentaene 44B/1, and tetraene 44B/1.
51				See pentaene 51.
51-10				See pentaene 51-10 and tetraene 51-10.
56				See pentaene 56.
58				See pentaene PA-153.
				continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
62				See heptaene 62.
71				See pentaene 71.
83				See pentaene 83.
90				See pentaene 90.
100				See heptaene 100.
123				See durhamycin.
141-18				See triene 141-18.
202/8				See pentaene 202/8.
207				See mycelin-IMO.
243				See levorin A ₀ , levorin A ₁ , levorin A ₂ , levorin A ₃ and levorin B.
248				See levorin A ₀ , levorin A ₁ , levorin A ₂ , levorin A ₃ , and levorin B.

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
358-A6				See tetraene 358-A6.
380				See pentaene 380 and tetraene 380.
396				See levorin.
496				See aureofungin A and aureofungin B.
523-A1				See pentaene 523-A1.
523-A2				See pentaene 523-A2.
523-G2				See pentaene 523-G2.
528				See heptaene 528.
535-A1				See hexaene 535-A1 and tetraene 535-A1.
560-A2				See tetraene 560-A2
603-A1				See heptaene 603-A1.
604-A1				See heptaene 604-A1.
616				See heptaene PA-150.
				continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
660C or 660-C1				See tetraene 660C.
661				See pentaene 661.
674-A2				See tetraene 674-A2.
676-C1				See hexaene 676-C1 and tetraene 676-C1.
697				See tetraene 697.
757				See heptaene 757.
833/1				See hexaene 833/1.
843-1				See heptaene 843-1.
854/14				See hexaene 854/14.
858/14				See hexaene 858/14.
878				See hexaene 878.
878/6				See hexaene 878/6.
881/8 or 881/9				See pentaene 881/8 or pentaene 881/9.

continued--

TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
888/1				See pentaene 888/1 and tetraene 888/1.
917/1				See pentaene 917/1 and tetraene 917/1.
991-A2				See pentaene 991-A2.
1011				See heptaene 1011.
1030/4				See hexaene 1030/4 and tetraene 1030/4.
1067				See akitamycin.
1070/39 or 1078/39				See pentaene 1070/39 or 1078/39 and tetraene 1070/39 or 1078/39.
1079/17				See pentaene 1079/17 and tetraene 1079/17.
1080/1				See pentaene 1080/1 and tetraene 1080/1.

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
1129/66				See heptaene 1129/66.
1130/12				See xanthalycin A and xanthalycin B and tetraene 1130/12.
1130/53				See pentaene 1130/53.
1130/92				See heptaene 1130/92, pentaene 1130/92 and tetraene 1130/92.
1130/69				See pentaene 1130/69.
1138/17 or 1168/17				See heptaene 1138/17 or 1168/17, pentaene 1138/17 or 1168/17, and tetraene 1138/17 or 1168/17.
1161 FI				See lucensomycin.
1163 FI				See lucensomycin.
1395/6				See hexaene 1395/6 and tetraene 1395/6.

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
1397/5				See hexaene 1397/5 and tetraene 1397/5.
1397/6				See hexaene 1397/6 and tetraene 1397/6.
1397/11				See hexaene 1397/11 and tetraene 1397/11.
1399/11				See heptaene 1399/11, pentaene 1399/11, and tetraene 1399/11.
1401/5				See hexaene 1401/5 and tetraene 1401/5.
1401/11				See hexaene 1401/11 and tetraene 1401/11.
1403/2				See hexaene 1403/2 and tetraene 1403/2.
1403/5				See hexaene 1403/5 and tetraene 1403/5.
1404				See hexaene A-1404.

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
1413/6				See heptaene 1413/6, pentaene 1413/6, and tetraene 1413/6.
1415/10				See heptaene 1415/10, pentaene 1415/10, and tetraene 1415/10.
1425/20				See heptaene 1425/20, pentaene 1425/20, and tetraene 1425/20.
1437-19				See heptaene 1437-19.
1449/12				See pentaene 1449/12 and tetraene 1449/12.
1453/68				See pentaene 1453/68 and tetraene 1453/68.
1454/69				See pentaene 1454/69.
1459/2				See hexaene 1459/2 and tetraene 1459/2.
1471/2				See hexaene 1471/2 and tetraene 1471/2.

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
1477/73				See pentaene 1477/73 and tetraene 1477/73.
1477/134				See heptaene 1477/134, pentaene 1477/134, and tetraene 1477/134.
1490/13				See heptaene 1490/13, pentaene 1490/13, and tetraene 1490/13.
1491/7				See heptaene 1491/7, pentaene 1491/7, and tetraene 1491/7.
1491/23				See hexaene 1491/23 and tetraene 1491/23.
1492/56				See hexaene 1492/56 and tetraene 1492/56.
1493/1				See hexaene 1493/1 and tetraene 1493/1.
1493/27				See hexaene 1493/27 and tetraene 1493/27.

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
1519/2				See hexaene 1519/2 and tetraene 1519/2.
1579				See pentaene 1579.
1583/13				See heptaene 1583/13, pentaene 1583/13, and tetraene 1583/13.
1583/52				See heptaene 1583/52, pentaene 1583/52, and tetraene 1583/52.
1645P				See heptaene 1645P ₁ .
1645P ₁				See heptaene 1645P ₁ .
1646/15				See heptaene 1646/15, pentaene 1646/15, and tetraene 1646/15.
1658/2				See heptaene 1658/2, pentaene 1658/2, and tetraene 1658/2.
1665/3				See pentaene 1665/3.
1717/46				See heptaene 1717/46.

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
1756/2				See pentaene 1756/2 and tetraene 1756/2.
1757/53				See pentaene 1757/53 and tetraene 1757/53.
1759/54				See pentaene 1759/54 and tetraene 1759/54.
1760/8				See heptaene 1760/8, pentaene 1760/8, and tetraene 1760/8.
1762				See pentaene 1762.
1769/2				See pentaene 1769/2 and tetraene 1769/2.
1771/8				See heptaene 1771/8, pentaene 1771/8, and tetraene 1771/8.
1772/6				See heptaene 1772/6, pentaene 1772/6, and tetraene 1772/6.
1773/7				See heptaene 1773/7, pentaene 1773/7, and tetraene 1773/7.

continued--

TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
1831/23				See heptaene 1831/23.
1874/18				See heptaene 1874/18, pentaene 1874/18, and tetraene 1874/18.
1876/41				See pentaene 1876/41 and tetraene 1876/41.
1894/1				See heptaene 1894/1, pentaene 1894/1, and tetraene 1894/1.
1900 C ₁				See heptaene 1900 C ₁ .
1947/1				See heptaene 1947/1, pentaene 1947/1, and tetraene 1947/1.
1950/14				See heptaene 1950/14, pentaene 1950/14, and tetraene 1950/14.
1952/8				See heptaene 1952/8, pentaene 1952/8m, and tetraene 1952/8.
1954/1				See heptaene 1954/1, pentaene 1954/1, and tetraene 1954/1.

continued--

TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
1959/6				See heptaene 1959/6, pentaene 1959/6, and tetraene 1959/6.
1960/1				See heptaene 1960/1, pentaene 1960/1, and tetraene 1960/1.
1967/14				See heptaene 1967/14, pentaene 1967/14, and tetraene 1967/14.
1968				See perimycin.
1990/19				See heptaene 1990/19, pentaene 1990/19, and tetraene 1990/19.
1993/16				See heptaene 1993/16, pentaene 1993/16, and tetraene 1993/16.
2005/1				See heptaene 2005/1, pentaene 2005/1, and tetraene 2005/1.

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
2014/8				See pentaene 2014/8 and tetraene 2014/8.
2094/3				See heptaene 2094/3, pentaene 2094/3, and tetraene 2094/3.
2236				See neopentaene.
2239				<u>Lapsus calami</u> for 2339.
2333/14				See heptaene 2333/14, pentaene 2333/14, and tetraene 2333/14.
2339				See heptaene 2339.
2340				See heptaene 2340.
2350				See heptaene 2350.
2368				See heptaene 2368.
2370/5				See pentaene 2370/5 and tetraene 2370/5.
2381				See pentaene 2381.

continued--

TABLE 1.---Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
2472/6				See heptaene 2472/6, pentaene 2472/6, and tetraene 2472/6.
2544/1				See pentaene 2544/1.
2667/2				See heptaene 2667/2, pentaene 2667/2, and tetraene 2667/2.
2789				See heptaene 2789.
2811/31				See heptaene 2811/31, pentaene 2811/31, and tetraene 2811/31.
2814 H				See mycoheptin.
2814 P				See pentaene 2814 P.
2824/38				See heptaene 2824/38, pentaene 2824/38, and tetraene 2824/38.
2843-10				See aurenin.
2862/10				See heptaene 2862/10, pentaene 2862/10, and tetraene 2862/10.

continued--

TABLE 1.---Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
2864/1				See heptaene 2864/1, pentaene 2864/1, and tetraene 2864/1.
3007				See heptaene 3007.
3016				See heptaene 3016.
3307				See heptaene 3307.
3326				See heptaene 3326 and hexaene 3326.
3329				See heptaene 3329.
3351				See heptaene 3351.
3369				See heptaene 3369.
3440				See pentaene 3440.
3569				See antimycoins.
3570				See candidin A, candidin B, and candidin C.
				continued--

TABLE 1.---Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
3606/5				See lucensomycin.
3694				See amphotericin B.
4878				See heptaene 4878.
4915				See antifongine.
4995/35				See lucensomycin.
5207/1				See levorin A ₀ , levorin A ₁ , levorin A ₂ , levorin A ₃ , and levorin B.
6246				See heptaene 6246.
6617				See guamycin.
7071 RP				See tetraene 7071 RP.
8085/54				See pentaene 8085/54 and tetraene 8085/54.
8211/54				See pentaene 8211/54 and tetraene 8211/54.
9971 RP				See tetraene 9971 RP.

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
10246				See heptaene 10246.
15602/54				See heptaene 15602/54.
16656				See heptaene Sch 16656.
16749				See pentaene 16749.
17044	mixture	non-polyene	<u>ornatus</u>	17044 (ornamycin) is non-polyenic Calot and Cercos (1963a); Calot and Cercos (1963b); Eilberg and Souto (1966).
17731				A <u>Lapsus calami</u> for <u>tetrin and polyene</u> 17732 in Umezawa (1967).
17732				See tetrin A, tetrin B, and polyene 17732.
20388				See pentaene 20388.
A-2				See heptaene A-2.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
A-3				See heptaene A-3.
A.4				See heptaene A.4.
A-10				See heptaene A-10.
A-12				See heptaene A-12.
A-13				See heptaene A-13.
A-15				See heptaene A-15.
A-16				See heptaene A-16.
A-17				See heptaene A-17.
A-18				See heptaene A-18.
A-21				See heptaene A-21.
A-26				See heptaene A-26.
A-28				See hexaene A-28 and heptaene A-28.
A-29				See heptaene A-29.
A-30				See heptaene A-30.
continued--				

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
A-31				See heptaene A-31.
A-34				See heptaene A-34.
A-35				See heptaene A-35.
A-37				See heptaene A-37.
A73				See nystatin.
A94				See nystatin.
A-113				See heptaene A-113.
A-207				See hexaene A-207 or mycelin IMO.
A.228				See pentaene A.228a and pentaene A.228b.
A.228a				See pentaene A.228a.
A.228b				See pentaene A.228b.
A.246				See fungichromin.
A-262				See hexaene A-262.

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
A-264				See hexaene A-264.
A.284				See tetraene A.284.
A.288				See tetraene A.288.
A.341				See pentaene A.341.
A.387				See tetraene A.387.
A.432				See tetraene A.432.
A-435				See tetraene A-435.
A.570				See heptaene A.570.
A.571				See heptaene A.571.
A.583				See heptaene A.583.
A.688				See pentaene A.688.
A.695				See pentaene A.695.
A.772				See pentaene A.772.
A.786				See pentaene A.786.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
A.789				See pentaene A.789.
A.862				See tetraene A.862.
A-1404				See hexaene A-1404.
A-5283				See pimaricin.
A 2814 H				See mycoheptin.
A 2814 P				See pentaene 2814 P.
A-5288				See pimaricin.
Ac ₂ 435				See tetraene A-435.
AE-56				See ayfactin.
AF-1231				See heptaene AF-1231.
AFS ₂				See hexin.
AYF				See ayfactin A and ayfactin B.
AYF-A				See ayfactin A.
AYF-B				See ayfactin B.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
B-10				See heptaene B-10.
B-24				See heptaene B-24.
B-27				See heptaene B-27.
B-31				See heptaene B-31.
B-34				See sapromycetin.
B-74				See hexaene B-74.
B-456				See fungichromin.
B-1256				See hexaene B-1256 and pentaene B-1256.
BH 890				See tetraene BH 890 α and tetraene BH 890 β .
BK 217				See heptaene BK 217 γ and pentaene BK 217 β .
BK 217 β				See pentaene BK 217 β .
BK 217 γ				See heptaene BK 217 γ .

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
C1				<u>Lapsus calami</u> ; no reference found.
C-6				See heptaene C-6 and tetraene C-6.
C-10				See heptaene C-10.
C-11				See takamycin.
C-16				See heptaene C-16.
C 135				See candidicin A, candidicin B, and candidicin C.
C 381				See antimycins.
D-4				See heptaene D-4.
DJ-400				See heptaene DJ-400-2A, heptaene DJ-400-2B, heptaene DJ-400-4A, heptaene DJ-400-4B, heptaene DJ-400-4C, heptaene DJ-400-6A, heptaene DJ-400-6B, heptaene DJ-400-7A, heptaene DJ-400-8A,

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
DJ-400 (continued)				heptaene DJ-400-8B, heptaene DJ-400-10B, heptaene DJ-400-12, heptaene DJ-400-A, heptaene DJ-400-B ₁ , heptaene DJ-400-B ₂ , heptaene DJ-400-A ₂ , and heptaene DJ-400- C.
DJ-400-2A				See heptaene DJ-400-2A.
DJ-400-2B				See heptaene DJ-400-2B.
DJ-400-4A				See heptaene DJ-400-4A.
DJ-400-4B				See heptaene DJ-400-4B.
DJ-400-4C				See heptaene DJ-400-4C.
DJ-400-6A				See heptaene DJ-400-6A.
DJ-400-6B				See heptaene DJ-400-6B.
DJ-400-7A				See heptaene DJ-400-7A.
DJ-400-8A				See heptaene DJ-400-8A.
DJ-400-8B				See heptaene DJ-400-8B.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
DJ-400-10B				See heptaene DJ-400-10B.
DJ-400-12				See heptaene DJ-400-12.
DJ-400-A				See heptaene DJ-400-A.
DJ-400-A ₂				See heptaene DJ-400-A ₂ .
DJ-400-B ₁				See heptaene DJ-400-6B.
DJ-400-B ₂				See heptaene DJ-400-8B.
DJ-400-C				See heptaene DJ-400-C.
E1				See pentaene 549-A1.
E1				See pentaene 549-A1.
E11				See pentaene 991-A2.
F-17-C				See azacolutin A and azacolutin B.
F-17-C-A				See azacolutin A.
F-17-C-B				See azacolutin B.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
FFG				See mycoticin 1a and mycoticin 1b.
FI 1163				See lucensomycin.
G8				See pentaene G8.
G-83				See heptaene G-83.
G-252				See candidin.
Glaxo A-246				See fungichromin.
H-1A				See heptaene H-1A.
HA-106				See pentaene HA-106.
HA-135				See pentaene HA-135.
HA-145				See pentaene HA-145.
HA-176				See pentaene HA-176.
HA-496				See aureofungin A and aureofungin B.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
I ₄ B				<u>Lapsus calami</u> , see <u>J₄B.</u>
I-337C				See fradycin.
J ₄ B				See onomycin I.
JA 1015				See pentaene JA 1015.
JA 2814				See mycoheptin and pentaene 2814P.
JA 3789				See tetramycin.
JA 3792				See tetraene JA 3792.
JA 3890a				See nystatin.
JA 3890b				See nystatin.
JA 4015				See pentaene JA 4015.
Ja 4265				See tetraene JA 4265.
JA 4495				See pentaene JA 4495.
L23				See pentafungin.

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TABLE 1.---Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
LIA 0530				See flavoviridomycin.
LIA 0677B				See hexaene LIA 0677B.
LIA 1130/12				See xanthalyacin A, xanthalyacin B, and tetraene 1130/12.
LL-BH-890 α				See tetraene BH-890 α .
LL-BH-890 β				See tetraene BH-890 β .
LL-BK-217				See heptaene BK-217 γ .
LL-BL-217				See pentaene BL-217 α and pentaene BL-217 β .
LL-BL-217 α				See pentaene BL-217 α .
LL-BL-217 β				See pentaene BL-217 β .
MM8				See triene MM8.
MYC-4				See tetraene MYC-4.
NC 1968				See perimycin.
P				See pimaricin.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
P-42B				See tetraene P-42B.
P-42E				See arenomycin B.
PA-58				See pentaene PA-153.
PA-85				See rimocidin.
PA-86				See tetraene PA-86.
PA-150				See candidin.
PA-153				See pentaene PA-153.
PA-166				See tetraene PA-166.
PA-616				See heptaene PA-150.
PRL 1678				See endomycin A and endomycin B.
R-42B				See tetraene P-42B a <u>lapsus calami</u>
RP 7071				See tetraene 7071 RP.
RP 9971				See tetraene 9971 RP.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
RP 17732				See tetrin A, tetrin B, and polyene 17732
SALX				See mycoticin 1a and mycoticin 1b.
SA-IX				See mycoticin 1a and and mycoticin 1b.
Sch 16656				See heptaene Sch 16656.
SPA-S-132				See partricin.
T6				See akitamycin.
T-2636-M				See pentaene T-2636-M.
U-10A				See unamycin.
W-2				See heptaene W-2.
WX2412				See perimycin.
X-63				See heptaene X-63.
X-68				See heptaene X-68
				continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
X-1019				See pentaene X-1019.
antifongine	single entity	heptaene	<u>paucisporogenes</u>	Hagemann et al. (1958, 1959, 1962).
antifongine 4915				See antifongine.
antifungin				See antifongine.
antifungin 4915				See antifongine.
antimycetin				<u>Lapsus calami for</u> <u>antimycetin in</u> <u>Arcamone et al.</u> (1965).
antimycoin	single entity	tetraene	<u>aureus</u>	See antimycoids.
antimycoid A	single entity	tetraene	<u>aureus</u>	Raubitschek et al. (1952); Bush (1956); Schaffner et al. (1965).
antimycoids				See antimycoid and antimycoid A.
antimycoid				See antimycoid.

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TABLE 1. ---Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
antimyocin				<u>Lapsus calami</u> for <u>antimyocin</u> .
arenomycin B	single entity	tetraene	<u>tumemacerans</u>	Krasil'nikov and Koveshnikov (1962); Tokhtamuratov and Silaev (1965); Khodzhibaeva and Askarova (1970); Kuimova et al. (1971); <u>Fukushima et</u> <u>al.</u> (1973); Berdy (1974).
ascorin				<u>Lapsus calami</u> for <u>ascosin</u> .
ascosin				See ascosin A and ascosin B.
ascosin (1st sub- stance, weak)				See ascosin A and ascosin B.
ascosin I				See ascosin A and ascosin B.
ascosin (2nd sub- stance, strong)				See ascosin A and ascosin B.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
ascosin II				See ascosin A and ascosin B.
ascosin A	single entity	heptaene	<u>canescus</u>	Hickey <u>et al.</u> (1952); <u>Kutzner and Waksman</u> (1959); Kinsky and Weber (1965).
ascosin B	single entity	heptaene	<u>canescus</u>	Hickey <u>et al.</u> (1952); <u>Kutzner and Waksman</u> (1959); Kinsky and Weber (1965).
aurenin	single entity	pentaene	<u>aureus</u>	Semenova <u>et al.</u> (1963); <u>Frolova et al.</u> (1967).
aureofacin				See ayfactin A and ayfactin B.
aureofungin				See aureofungin A and aureofungin B.
aureofungin A	single entity	heptaene	<u>terrestris</u>	Dave <u>et al.</u> (1962); <u>Thirumalachar et al.</u> (1964); Bhate and <u>Acharya</u> (1964); Deshpande and Narasimhachari (1967); Rahalkar and <u>Thirumalachar</u> (1968).

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
aureofungin B	single entity	heptaene	<u>terrestris</u>	Dave et al. (1962). Thirumalachar et al. (1964); Bhate and Acharya (1964); Deshpande and Thirumalachar (1967); Rahalkar and Thirumalachar (1968).
ayfactin(e)				See ayfactin A and ayfactin B.
ayfactin A	single entity	heptaene	<u>aureofaciens</u>	Duggar (1948); Kuroya et al. (1951); Maeda et al. (1952); Takahashi (1952); Martin et al. (1955); Igarasi et al. (1956); Kaplan et al. (1958); Bristol Laboratories Inc. (1958).
			sp.	Staron and Faivre-Amiot (1960); Berdy (1974).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
ayfactin B	single entity	heptaene	<u>aureofaciens</u>	Duggar (1948); Kuroya et al. (1951); Maeda et al. (1952); Takahashi (1952); Martin et al. (1955); Igarasi et al. (1956); Kaplan et al. (1958); Bristol Laboratories Inc. (1958).
azacolutin			sp.	Staron and Faivre-Amiot (1960); Berdy (1974).
azacolutin A	single entity	heptaene	<u>cinnamomeus</u> subsp. <u>azacoluta</u>	See azacolutin A and azacolutin B. Pridham et al. (1956); Lindenfelser et al. (1958); Craveri et al. (1960).
azacolutin B	single entity	heptaene	<u>cinnamomeus</u> subsp. <u>azacoluta</u>	Pridham et al. (1956); Lindenfelser et al. (1958); Craveri et al. (1960).

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TABLE 1.---Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
bruneofungin	single entity	pentaene		Berdy (1974).
cabacidin(e)				See kabicidin.
cabacidin(e)				See kabicidin.
canadidin				<u>Lapsus calami</u> , see <u>candidin</u> .
Candeptin				Trade name for candidins A, B, and C formulations.
candicidin(s)				See candicidin A, candicidin B, and candicidin C.
candicidin A	single entity	heptaene	<u>griseus</u>	Lechevalier et al. (1953); <u>Blinov</u> (1958); Waksman and Lechevalier (1961); Kuznetsov (1962); Kinsky and Weber (1965); Kuznetsov et al. (1969); Berdy (1974).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
candicidin B	single entity	heptaene	<u>griseus</u>	Lechevalier et al. (1953); <u>Blinov</u> (1958); Waksman and Lechevalier (1961); Kuznetsov (1962); Kinsky and Weber (1965); Kuznetsov et al. (1969); Berdy (1974).
candicidin C	single entity	heptaene	<u>griseus</u>	Lechevalier et al. (1953); <u>Blinov</u> (1958); Waksman and Lechevalier (1961); Kuznetsov (1962); Kinsky and Weber (1965); Kuznetsov et al. (1969); Berdy (1974).
candidin(e)	single entity	heptaene	<u>viridoflavus</u>	Taber et al. (1954); Raigorodskaya et al. (1967); Martin and McDaniel (1973a, 1973b).
candinin	single entity	heptaene	<u>viridoflavus</u>	Taber et al. (1954); <u>Borowski</u> et al. (1961); <u>Borowski</u> and Schaffner (1961); <u>Borowski et al.</u> (1971).

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
candidoin	single entity	heptaene	<u>viridoflavus</u>	Taber et al. (1954); Borowski and Schaffner (1961); Borowski et al. (1971).
candihexin				See candihexin A, candihexin B, candihexin C, candihexin D, candihexin E, and candihexin F.
candihexin A	single entity		<u>viridoflavus</u>	Martin and McDaniel (1973a, 1973b).
candihexin B	single entity		<u>viridoflavus</u>	Martin and McDaniel (1973a, 1973b).
candihexin C				See <u>cis-candidin</u> .
candihexin D	single entity		<u>viridoflavus</u>	Martin and McDaniel (1973a, 1973b).
candihexin E	single entity		<u>viridoflavus</u>	Martin and McDaniel (1973a, 1973b).

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TABLE 1.---Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
candihexin F	single entity		<u>viridoflavus</u>	Martin and McDaniel (1973a, 1973b).
candimycin	single entity	heptaene	<u>ehimensis</u>	Shibata et al. (1954); Nakazawa et al. (1955); Horiï et al. (1970).
candimycin A	single entity	heptaene	<u>ehimensis</u>	Shibata et al. (1954); Nakazawa et al. (1955); Horiï et al. (1970).
candistin(e)	single entity	tetraene	<u>noursei</u>	Kurylowicz et al. (1974).
capacidin	single entity	pentaene	sp. (lost)	Brown and Hazen (1959a, 1959b, 1960a, 1960b, 1960c).
chainin	single entity	pentaene	sp.	Gopalkrishnan et al. (1968); Pandey et al. (1972).
champamycin A	single entity	heptaene	<u>champavati</u>	Rao and Uma (1958); Uma and Rao (1959); Uma (1961); Rao and Rao (1967).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
champamycin B	single entity	heptaene	<u>champavati</u>	Rao and Uma (1958); Uma and Rao (1959); Uma (1961); Rao and Rao (1967).
chantalmycin	single entity	pentaene	sp.	Gupta et al. (1965).
chromin	single entity	tetraene	<u>antibioticus</u>	Wakaki et al. (1951, 1952, <u>1953</u>).
<u>cis</u> -candidin	single entity	heptaene	<u>viridoflavus</u>	Martin and McDaniel (1973a, 1973b).
Comycin				Trade name for nystatin-containing formulation.
criptomycin				See cryptomycin.
cromin				See chromin.
cryptocidin(e)	single entity	hexaene	sp.	Sakamoto (1959); Arishima and Sakamoto (1960).
cryptomycin	complex (6-7 components)	heptaene	<u>bulgaricus</u>	Tsyganov et al. (1972).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
cryptomycin				A <u><i>lapsus calami</i></u> for <u>cryptocidin</u> in Eisenbrandt (1967).
14-deoxylagosin				See filipin complex.
dermostatin				See dermostatin A and dermostatin B.
dermostatin A	single entity	hexaene	<u>viridogriseus</u>	Thirumalachar and Menon (1962); Narasimhachari and Swami (1970); Pandey et al. (1966, 1973).
dermostatin B	single entity	hexaene	<u>viridogriseus</u>	Thirumalachar and Menon (1962); Pandey et al. (1966, 1973); Narasimhachari and Swami (1970).
distamycin				See distamycin B
distamycin B	single entity	heptaene	<u>distallicus</u>	Societe Farmaceutici Italia (1956); Arcamone et al. (1965).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
distamycin C	single entity	pentaene	<u>distallicus</u>	Societe Farmaceutici Italia (1956); Arcamone <u>et al.</u> (1965).
distomycin				<u>Lapsus calami</u> , see <u>distamycin B</u> .
durhamycin				See filipin.
endomycin				See endomycin A and endomycin B.
endomycin A	single entity	tetraene	<u>albus</u>	Wilson (1950); Gottlieb <u>et al.</u> (1951); Leben <u>et al.</u> (1952); Smeby <u>et al.</u> (1952); Vining and Taber (1957); Markovich <u>et al.</u> (1964); Johnson and Dietz (1971); Bergy and Hoeksma (1972).
endomycin B	single entity	hexaene	<u>albus</u>	Wilson (1950); Gottlieb <u>et al.</u> (1951); Leben <u>et al.</u> (1952); Smeby <u>et al.</u> (1952); Vining and Taber (1957); Markovich <u>et al.</u>

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
endomycin B (continued)				(1964); Johnson and Dietz (1971); Bergy and Hoeksma (1972).
Etruscomycin				Trade name, see lucensomycin.
eurocidin				See eurocidin A and eurocidin B.
eurocidin A	single entity	pentaene	<u>albireticuli</u>	Nakazawa et al. (1953); Nakazawa (1955); Shibata et al. (1956); <u>Horii</u> et al. (1970).
eurocidin B	single entity	pentaene	<u>albireticuli</u>	Nakazawa et al. (1953); Nakazawa (1955); Shibata et al. (1956); <u>Horii</u> et al. (1970).
eurocidin-like antibiotic				See pentaene 991-A2 and pentaene of Anzai et <u>al.</u>
eurocydein				<u>Lapsus calami</u> , see <u>eurocidin</u> .

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
eurotin**	mixture or complex			See eurotin A.
eurotin A	single entity	heptaene	<u>griseus</u>	Hosoya et al. (1959); Soeda and Fujita (1959c); Hosoya and Soeda (1960).
evorin				<u>Lapsus calami</u> , see <u>levorin</u> .
FFG				See mycoticin 1a and mycoticin 1b.
filimaricin				See filipin. May be trade name.
filimarisin				See filipin. May be trade name.
filipin	complex	pentaene		See filipin (below) and filipin I, filipin II, filipin III, and filipin IV.
continued--				

** According to Hosoya et al. (1959), eurotin is a mixture or complex of three components, one of which is eurotin A, a heptaene. Berdy (1974) states "eurotin" is a hexaene. The third component never has been identified or discussed so far as can be determined.

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
filipin***	complex	pentaene	<u>filipinensis</u>	Gottlieb et al. (1955); Whitfield et al. (1955); Bergy and Eble (1968); Pandey and Rinehart (1970).
(fungichromin)			<u>cellulosae</u>	Tytell et al. (1955); Cope et al. (1962).
(fungichromin)			<u>cinnamoneus</u>	Dvonch et al. (1954); Robison et al. (1971).
(durhamycin)			<u>durhamensis</u>	Warren et al. (1951); Gordon and Lapa (1966).
(kabicidin)			<u>gougeroti</u>	Ogata et al. (1958a, 1958b).

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*** The situation regarding "filipin" and its several components would seem to require comparative study of each of the producing "species" and their products. Such a comparative study would help to clarify information regarding this complex of closely related pentaenic antifungal factors. Hence, the inclusion of "species" producing durhamycin, filipin, fungichromin, kabicidin, lagosin, moldicidin B, pentaene JA 3708, pentaene JA 3708, pentaene JA 4007, and pentamycin all of which reputedly consist of one or more components of the filipin complex.

TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
(moldcidin B)			<u>griseofuscus</u>	Sakamoto (1959); Ogawa et al. (1960); Sakamoto et al. (1962).
(fungichromin)			<u>griseolosuffuscus</u>	" Fugner and Bradler (1963).
(pentamycin)			<u>pentaticus</u>	S. Umezawa (1957); S. Umezawa et al. (1958, 1959).
(lagosin)			<u>roseoluteus</u>	Ball et al. (1957); BesselI et al. (1961); Kuznetsov et al. (1973).
filipin I	complex (5 components)			See filipin.
filipin II	single entity			See filipin.
filipin III	single entity			See filipin.
filipin IV	single entity			See filipin.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
flavacid	single entity	hexaene	<u>flavus</u>	Takahashi (1953); Inoue (1953); Kuroya (1954).
flavofungin				See mycoticin 1a and mycoticin 1b.
flavofungin A				See mycoticin 1a.
flavofungin B				See mycoticin 1b.
flavomycin				See flavomycin.
flavomycosin	single entity	pentaene	<u>roseoflavus</u> subsp. <u>jenensis</u>	Schlegel and Thrum (1968); Thrum et al. (1970); Schlegel and Thrum (1971).
flavoviridomycin	single entity	tetraene	<u>flavoviridis</u> subsp. <u>fungicidicus</u>	Mitskevich et al. (1973).
fradacidin				<u>Lapsus calami</u> , see <u>fradacin</u> .
fradacin	single entity	hexaene	<u>fradiae</u> (<u>Kitasatoa kauaiensis</u>)	Swart et al. (1950); Abe and Hata (1968); Hata et al. (1972); Matsumae (1974).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
fradycin-like antibiotic				See hexaene 1587-Z2.
fravacid				<u>Lapsus calami</u> , see <u>flavacid</u> .
fumanomycin		pentaene		Berdy (1974).
fungichromatin	single entity	pentaene	sp. (lost)	Tytell et al. (1955).
fungichromin				See filipin.
fungicidin				See antimycocins and nystatin.
fungicin				<u>Lapsus calami</u> , see <u>fungicidin</u> .
fungicidin-RAW				See antimycocins.
fungimycin				See perimycin.
Fungistatin				Trade name for nystatin formulation.
Fungizone				Trade name for amphotericin B formulation.

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
furotin				<u>Lapsus calami</u> , see <u>eurotin</u> .
gangtokmycin	single entity	pentaene	<u>gangtokensis</u>	Shibata et al. (1963, 1973).
gangtokomycin				See gangtokmycin.
gangtokumycin				See gangtokmycin.
genimycin	single entity	pentaene	sp. (<u>Actinosporangium</u>)	Severinets et al. (1970).
geobriecin				<u>Lapsus calami</u> , see <u>gerobriecin</u> .
gerobriecin	single entity	heptaene	<u>jujuy</u>	Cataldi et al. (1964).
glaxo antibiotic A-246				See fungichromin.
glubilin				<u>Lapsus calami</u> , see <u>grubilin</u> .
grubilin	single entity	heptaene	sp.	Uri et al. (1960).
guamicina				See guamycin.

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
guamycin	single entity	tetraene	<u>guanamiceticus</u>	Albuquerque et al. (1968, 1969); <u>Lyra</u> et al. (1971).
hamamycin				<u>Lapsus calami</u> , see <u>hamycin</u> .
hamycin				See hamycin (major component), hamycin (minor component), and hamycin X.
hamycin (major component)	single entity	heptaene	<u>pimprina</u>	Bhate et al. (1960); <u>Thirumalachar et al.</u> (1961); <u>Raja (1961)</u> ; Bhate and Acharya (1963); Thirumalachar (1966); Ganguli and Doctor (1967).
hamycin (minor component)	single entity	heptaene	<u>pimprina</u>	Bhate et al. (1960); <u>Thirumalachar et al.</u> (1961); <u>Raja (1961)</u> ; Bhate and Acharya (1963); Thirumalachar (1966); Ganguli and Doctor (1967).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
hamycin X	single entity	heptaene	<u>pimprina</u>	Bhate et al. (1960); Thirumalachar et al. (1961); Raja (1961); Bhate and Acharya (1963); Thirumalachar (1966); Ganguli and Doctor (1967).
haxaene				See perimycin.
hediocidin				Lapsus calami, see <u>mediocidin</u> .
helixin(s)				See helixin A and helixin B.
helixin A				See endomycin A.
helixin B				See endomycin B.
hepcin	single entity	heptaene	<u>griseoroseum</u> (<u>Actinosporangium</u>)	Tsyganov et al. (1971).
heptaene of Anzai et al.				See pentaene 991-A2.
heptaene of Arai and Mikami	single entity	heptaene	<u>viridans</u>	Arai and Mikami (1969).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene of Arai <u>et al.</u>				See heptaene 100.
heptaene of Askarova <u>et al.</u>	single entity	heptaene	sp.	Askarova <u>et al.</u> (1967).
heptaene of Blinov		heptaene	<u>hachijoensis</u> subsp. <u>fuscatus</u>	Blinov (1958).
heptaene of Blinov		heptaene	<u>hachijoensis</u>	Blinov (1958).
heptaene of Blinov		heptaene	<u>viridoflavus</u>	Blinov (1958).
heptaene of Blinov		heptaene	<u>globisporus</u>	Blinov (1958).
heptaene of Blinov		heptaene	<u>canescens</u>	Blinov (1958).
heptaene of Filippova <u>et al.</u>	single entity	heptaene	<u>globisporus</u>	Filippova <u>et al.</u> (1965).
heptaene of Gattani	single entity	heptaene	<u>griseus</u>	Gattani (1961).
heptaene (or pentaene) of Gupta	single entity	heptaene or pentaene	<u>tropicalensis</u>	Gupta (1965).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene of Gupta and Chopra	single entity	heptaene	<u>riasensis</u> or <u>raisensis</u>	Gupta and Chopra (1964); Arai and Mikami (1969).
heptaene of Hutter				See heptaene 123.18.
heptaene of Konev and Bol'shakova	single entity	heptaene	<u>olivovorticillatus</u>	Konev and Bol'shakova (1963).
heptaene 1 of Nefelova and Pozmogova	complex	heptaene	<u>globisporus</u>	Nefelova and Pozmogova (1960).
heptaene 2 of Nefelova and Pozmogova	complex	heptaene	<u>globisporus</u>	Nefelova and Pozmogova (1960).
heptaene of Sakagami et al.	single entity	heptaene	<u>reticuli</u> var. <u>latumcidicus</u>	Sakagami et al. (1958).
heptaene of Sukharevich and Svetsova				See mycoheptaene.
heptaene of Ueda and Umezawa	single entity	heptaene	<u>abikoensis</u>	Ueda and Umezawa (1956).

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TABLE 1.---Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene of Uma				See champamycin A and champamycin B.
heptaene of Waksman				See heptaene of Arai and Mikami.
heptaene 2/49	single entity	heptaene	<u>griseus</u>	Kuznetsov et al. (1969).
heptaene 3/49	single entity	heptaene	<u>griseus</u>	Kuznetsov et al. (1969).
heptaene 6/6	single entity	heptaene	sp.	Tsyganov et al. (1960).
heptaene 17-41B	single entity	heptaene	sp.	Kuznetsov et al. (1962); Konev (1964).
heptaene 18A2-I				See cis-candidin, candihexin A, and candihexin C.
heptaene 18A2-II				See candihexin B and heptaene 18A2.
heptaene 26/1				See levorin A ₀ , levorin A ₁ , levorin A ₂ , levorin A ₃ , and levorin B.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene 44 V/1				See mycoheptin.
heptaene 62	single entity	heptaene	sp.	Arai et al. (1953, 1954).
heptaene 64	single entity	heptaene	<u>flavus</u> ?	Kuznetsov et al. (1969).
heptaene 100	single entity	heptaene	<u>olivoreticuli</u>	Arai et al. (1953, 1954, 1957); Ogi (1953).
heptaene 123.18	single entity	heptaene	<u>coelicolor</u>	" Hutter (1963).
heptaene 489-C2	single entity	heptaene	<u>abikoensis</u>	Utahara et al. (1954); Okami et al. (1954).
heptaene 528	single entity	heptaene	sp.	Lin and Yang (1965).
heptaene 561-C1	single entity	heptaene	sp.	Utahara et al. (1954); Okami et al. (1954).
heptaene 603-A1	single entity	heptaene	<u>abikoensis</u>	Utahara et al. (1954); Okami et al. (1954).
heptaene 604-A1	single entity	heptaene	<u>abikoensis</u>	Utahara et al. (1954); Okami et al. (1954).

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene 616				See heptaene PA-150.
heptaene 757	single entity	heptaene	sp.	Craveri and Giolitti (1956); Craveri and Veronesi (1956).
heptaene 843-1	single entity	heptaene	<u>verticillus</u>	Maeda et al. (1956).
heptaene 854/2	single entity	heptaene	sp.	Tsyganov et al. (1960).
heptaene 912	single entity	heptaene	<u>citreus</u>	Kuznetsov et al. (1969).
heptaene 1011	single entity	heptaene	sp.	Otani (1957).
heptaene 1129/66	single entity	heptaene	sp.	Egorenkova (1964).
heptaene 1130/92	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1138/17 or 1168/17	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1399/11	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1413/6	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1415/10	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1425/20	single entity	heptaene	<u>netropsis</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene 1437-19	single entity	heptaene	<u>levoris</u>	Kuznetsov et al. (1969).
heptaene 1477/134	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1490/13	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1491/7	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1565/53	single entity	heptaene	<u>globisporus subsp.</u> <u>flavofuscus</u>	Blinov (1958); Hutter (1963).
heptaene 1583/13	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1583/52	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1645 P ₁	single entity	heptaene	sp.	Lyra et al. (1961); Lyra et al. (1962).
heptaene 1646/15	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1658/2	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1717/46	single entity	heptaene		Egorenkova (1964).
heptaene 1760/8	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1771/8	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1772/6	single entity	heptaene	<u>netropsis</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene 1773/17	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1831/23	complex (2 components)	heptaene		Egorenkova (1964); Malyshkina <u>et al.</u> (1964); Romankova <u>et al.</u> (1971).
heptaene 1874/18	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1894/1	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1900 C ₁				Bérdy (1974).
heptaene 1947/1	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1950/14	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1952/8	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1954/1	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1959/6	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1960/1	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1967/14	single entity	heptaene	<u>netropsis</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene 1990/19	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 1993/16	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 2005/1	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 2094/3	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 2288	single entity	heptaene	sp.	Kuznetsov et al. (1969).
heptaene 2333/14	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 2339	complex	heptaene	<u>levoris</u>	Korenyako et al. (1961).
heptaene 2340	single entity	heptaene	<u>levoris</u>	Korenyako et al. (1961).
heptaene 2350	single entity	heptaene	<u>levoris</u>	Korenyako et al. (1961).
heptaene 2368	single entity	heptaene		Tokhtamuratov and Silaev (1967).
heptaene 2472/6	single entity	heptaene	<u>netropsis</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene 2667/2	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 2789	complex	heptaene	<u>levoris</u>	Korenyako et al. (1961).
heptaene 2811/31	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 2814H				See mycoheptin.
heptaene 2824/38	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 2862/10	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 2864/1	single entity	heptaene	<u>netropsis</u>	Konev (1964).
heptaene 3007	single entity	heptaene	<u>sulfureus</u>	Kuznetsov (1962).
heptaene 3016	single entity	heptaene		Egorenkova (1964).
heptaene 3307	single entity	heptaene	<u>anulatus</u>	Kuznetsov et al. (1969).
heptaene 3326	single entity	heptaene	<u>griseus</u>	Lyons and Pridham (1966).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene 3329	single entity	heptaene	<u>intermedius</u>	Kuznetsov (1962).
heptaene 3351	single entity	heptaene	<u>saprophyticus</u>	Kuznetsov (1962); Kuznetsov et al. (1969).
heptaene 4878	single entity	heptaene	<u>candidus</u>	Kuznetsov (1962).
heptaene 6246	single entity	heptaene	<u>odorifer</u>	Kuznetsov et al. (1969).
heptaene 10246	single entity	heptaene	<u>scabies</u>	Kuznetsov et al. (1969).
heptaene 13195/54				See levorin.
heptaene 15602/54	single entity	heptaene	<u>cacaoi</u>	Blinov (1958).
heptaene A-2	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-3	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A.4	single entity	heptaene	sp.	Ball et al. (1957).
heptaene A-10	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene A-12	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-13	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-15	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-16	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-17	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-18	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-21	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-26	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-28	complex?	initially hexaene, later heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene A-29	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-30	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene A-31	complex?	heptaene	<u>griseus</u> (lost)	Pledger and Lechevalier (1956).
heptaene A-34	complex?	heptaene	<u>griseus</u> (lost)	Pledger and Lechevalier (1956).
heptaene A-35	complex?	heptaene	<u>griseus</u> (lost ability to form heptaene)	Pledger and Lechevalier (1956).
heptaene A-37	complex?	heptaene	<u>griseus</u> (lost)	Pledger and Lechevalier (1956).
heptaene A-113	single entity	heptaene	sp.	Tsai et al. (1960).
heptaene A.228a	single entity	heptaene	sp.	Peynaud and Lafourcade (1953); Lafourcade (1955); Ball et al. (1956).
heptaene A.228b	single entity	heptaene	sp.	Peynaud and Lafourcade (1953); Lafourcade (1955); Ball et al. (1956).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene A-262	single entity	heptaene	sp.	Tsai et al. (1960).
heptaene A-264				Bérdy (1974).
heptaene A.570	single entity	heptaene	sp.	Ball et al. (1957).
heptaene A.571	single entity	heptaene	sp.	Ball et al. (1957).
heptaene A.583	single entity	heptaene	sp.	Ball et al. (1957).
heptaene A2814H				See mycoheptin.
heptaene AE-56				See ayfactin.
heptaene AF-1231	single entity	heptaene	sp.	Arishima and Sakamoto (1961); Meiji Confectionery Co. (1966).
heptaene B-10	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene B-24	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene B-27	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene B-31	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene BK 217 γ	single entity	heptaene	<u>cinnamoneus</u>	Shu and Barbatschi (1971); Bér \acute{e} dy (1974).
heptaene C-6	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene C-10	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene C-16	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene D-4	complex?	heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).
heptaene DJ-400-2A	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-2B	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-4A	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene DJ-400-4B	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-4C	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-6A	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-6B	single entity	heptaene (major)	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-7A	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-8A	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-8B	single entity	heptaene (major)	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene DJ-400-10B	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-12	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-A	single entity	heptaene (inactive)	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-A ₂	single entity	heptaene	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene DJ-400-B ₁				See heptaene DJ-400-6B.
heptaene DJ-400-B ₂				See heptaene DJ-400-8B.
heptaene DJ-400-C	single entity	heptaene (inactive)	<u>surinam</u>	Bohlmann et al. (1970a, 1970b); <u>Siewert</u> and Kieslich (1971).
heptaene G-83	single entity	heptaene	<u>coriofaciens</u>	Schmidt-Thome et al. (1960).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene G-252				See candidin.
heptaene H-1A	single entity	heptaene	<u>hachijoensis</u>	Okami et al. (1954); <u>Utahara</u> (1954).
heptaene HA-496				See aureofungin A and aureofungin B.
heptaene JA 2368	complex (2 components)	heptaene	<u>coelicolor</u>	" Fugner and Bradler (1963).
heptaene JA 2814				See heptaene 2814H.
heptaene JA 3453	single entity	heptaene	<u>albus</u>	" Fugner and Bradler (1963).
heptaene JA 3625	single entity	heptaene	<u>olivoreticuli</u>	" Fugner and Bradler (1963).
heptaene JA 4343	single entity	heptaene	<u>aureofaciens</u>	" Fugner and Bradler (1963).
heptaene JA 4513	single entity	heptaene	<u>netropsis</u>	" Fugner and Bradler (1963).
heptaene JA 4531	single entity	heptaene	<u>netropsis</u>	" Fugner and Bradler (1963).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
heptaene PA-150	single entity	heptaene	<u>parvisporogenes</u>	Tanner et al. (1958, 1961); Chas. Pfizer & Co. (1960); Koe et al. (1958); Bérdy (1974).
heptaene S-515	single entity	heptaene		Kalasz et al. (1967).
heptaene Sch 16656	complex (4 components)	heptaene	<u>caeruleus</u> (<u>Actinoplanes</u>)	Wagman et al. (1977).
heptaene W-2	single entity	heptaene	<u>diastatochromogenes</u>	Washida (1952); Arai et al. (1953; 1954)
heptaene X-63	single entity	heptaene	sp.	Kannan et al. (1967).
heptaene X-68				
heptaene Z-1-6	single entity	heptaene	<u>abikoensis</u>	Okami et al. (1954).
heptaefungin	complex (3 components A, B, and C)	heptaene	<u>achromolavendulae</u> or <u>longisporolavendulae</u>	Kalasz et al. (1969, 1972).
heptamycin	single entity	heptaene	sp.	Henis et al. (1957); Henis and Grossowicz (1960).
hexaene 1 of Nefelova and Pozmogova	single entity	hexaene	<u>globisporus</u>	Nefelova and Pozmogova (1960).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
hexaene 2 of Nefelova and Pozmogova	single entity	hexaene	<u>globisporus</u>	Nefelova and Pozmogova (1960).
hexaene 0570	single entity	hexaene	<u>plumbeus</u>	Paputskaya et al. (1970); Roman ^k ova et al. (1971); Tsyganov et al. (1972).
hexaene 0677	single entity	hexaene	<u>mediocidicus</u>	Tsyganov et al. (1973); see also <u>hexaene LIA-</u> 0677B.
hexaene 18A2-I				See candihexin A.
hexaene 18A2-II				See candihexin B.
hexaene 18A2-III				See candihexin D.
hexaene 18A2-IV				See candihexin E.
hexaene 535-A1				See mediocidin.
hexaene 676-C1	single entity	hexaene	<u>mediocidicus</u>	Okami et al. (1954); Utahara (1954).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
hexaene 676-A2	single entity	hexaene	<u>mediocidicus</u>	Okami et al. (1954); <u>Utahara (1954)</u> .
hexaene 833/1	single entity	hexaene	<u>endus</u>	Tsyganov et al. (1960); Golyakov et al. (1963).
hexaene 854/14	single entity	hexaene	<u>endus</u>	Golyakov et al. (1963).
hexaene 858/14	single entity	hexaene	<u>endus</u>	Tsyganov et al. (1960); Golyakov et al. (1963).
hexaene 878	single entity	hexaene		Egorenkova (1964).
hexaene 878/6	single entity	hexaene	<u>endus</u>	Golyakov et al. (1963).
hexaene 1030/4	single entity	hexaene	<u>endus</u>	Golyakov et al. (1963).
hexaene 1395/6	single entity	hexaene	<u>endus</u>	Golyakov et al. (1963).
hexaene 1397/5	single entity	hexaene	<u>endus</u>	Golyakov et al. (1963).
hexaene 1397/6	single entity	hexaene	<u>endus</u>	Golyakov et al. (1963).
hexaene 1397/11	single entity	hexaene	<u>endus</u>	Golyakov et al. (1963).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
hexaene 1401/5	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1401/11	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1403/2	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1403/5	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1459/2	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1471/2	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1491/23	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1492/56	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1493/1	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1493/27	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1519/2	single entity	hexaene	<u>endus</u>	Golyakov <u>et al.</u> (1963).
hexaene 1587-Z2	single entity	hexaene	<u>diastatochromogenes</u>	Utahara <u>et al.</u> (1959).
hexaene 3326	single entity	hexaene	<u>griseus</u>	Lyons and Pridham (1966).
hexaene A-28	complex?	initially hexaene, later heptaene	<u>griseus</u>	Pledger and Lechevalier (1956).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
hexaene A-1404	single entity	hexaene	<u>fradiae</u>	Ogata (1949/1950); Igarashi et al. (1955).
hexaene B-34				See endomycin B and sapromycetin.
hexaene 1256	single entity	hexaene	<u>rutgersensis</u>	Thompson et al. (1962).
hexaene JA 4029	single entity	hexaene	<u>endus</u>	" Fugner and Bradler (1963).
hexaene LIA-0570				See hexaene 0570.
hexaene LIA-0677B	single entity	hexaene		Bérdy (1974); see also hexaene 0677.
hexamycin	single entity	hexaene	sp.	Eisenbrandt (1967, 1968a, 1968b); Eisenbrandt et al. (1968).
hexin	single entity	hexaene	sp.	Thirumalachar and Rahalkar (1971).
homochainin	single entity	pentaene	sp.	Pandey et al. (1972).
isolevorin A ₂	single entity	heptaene	(chemical reaction product, UV)	Filippova et al. (1972).
junamycin				<u>Lapsus calami</u> , see <u>unamycin</u> .

TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
kabacidin				See filipin.
kotomycin		hexaene		Bér ^{dy} (1974).
lagosin				See filipin.
lagozine				See lagosin.
levarin				<u>Lapsus calami</u> , see <u>levorin</u> .
levorin				See levorin A ₀ , levorin A ₁ , levorin A ₂ , levorin A ₃ , and levorin B.
levorin A ₀	single entity	heptaene	<u>globisporus</u>	Nikitina (1958); Tsyganov et al. (1959, 1960, 1963, 1970); Kuznetsov (1962); Kuznetsov et al. (1969); Namestnikova and L'Vova (1970); Sukharevich et al. (1970); Zurabova et al. (1970); Roman ^{kova} et al. (1971); Peikrishvili et al. (1972); Konev (1973).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
levorin A ₁	single entity	heptaene	<u>globisporus</u>	See references for levorin A ₀ .
levorin A ₂	single entity	heptaene	<u>globisporus</u>	See references for levorin A ₀ .
levorin A ₃	single entity	heptaene	<u>globisporus</u>	See references for levorin A ₀ .
levorin B	single entity	heptaene	<u>globisporus</u>	See references for levorin A ₀ .
lienomycin	single entity	pentaene	<u>diastatochromogenes</u> subsp. <u>lienomycini</u>	Gauze et al. (1971); Brazhnikova et al. (1971).
			<u>vendargensis</u>	Sveshnikova et al. (1973).
lucensomycin	single entity	tetraene	<u>lucensis</u>	Arcamone et al. (1957, 1965); Manwaring et al. (1969).
mediocidin	single entity	hexaene	<u>mediocidicus</u>	Okami et al. (1954); Utahara et al. (1954); Umezawa et al. (1955).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
methy1 partricin	single entity	heptaene	<u>aureofaciens</u>	Danesino and Pellegrini (1973).
mycoheptin				See mycoheptin.
misionina				See misionin.
misionin	single entity	pentaene	<u>misionensis</u>	Cercos et al. (1962).
moldcidin(e)				See moldcidin A and moldcidin B.
moldcidin A	single entity	pentaene	<u>griseofuscus</u>	Sakamoto (1959); Arishima and Sakamoto (1961); Sakamoto et al. (1962).
moldcidin B				See filipin.
moldicidin				Not a polyene, some- times confused with moldcidin (sic). Tanaka (1960).
moldocidin A				<u>Lapsus calami</u> , see <u>moldcidin A</u> .
monicamycin	single entity	heptaene	<u>monicae</u>	Gupta (1964, 1965).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
moronal		polyene?		Muftic (1968).
mould-active antibiotic of Gaumann et al.				See pentaene 20388.
mycelin	single entity	hexaene	<u>roseoflavus</u>	Aiso et al. (1952).
mycelin-IMO	single entity	hexaene	<u>diastatochromogenes</u>	Igarashi and Ogata (1955); Igarashi et al. (1955); Ogata et al. (1957).
mycellin				<u>Lapsus calami</u> , see <u>mycelin</u> .
mycellin-IMO				<u>Lapsus calami</u> , see <u>mycelin</u> .
mycoheptaene	single entity	heptaene	<u>mycoheptinicum</u>	Sukharevich and Shvetsova (1970a, 1970b).
mycoheptin	single entity	heptaene	<u>netropsis</u>	Thrum (1960a, 1960b); Thrum and Dcho (1960); Fügner and Bradler (1963); Tsyganov et al. (1965); Borowski et al. (1965a, 1965b); Befdy (1974).

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
mycoheptin B	single entity		<u>mycoheptinicum</u>	Konev and Tsyganov (1967).
Mycolog				Kalasz et al. (1968).
Mycoprozine			<u>griseocarneus</u>	Berdy (1974).
Mycostatin		tetraene		Trade name.
				Lapsus calami, see <u>Myprozine</u> .
mycotycin(s)				Trade name for mystatin formulation.
mycotycin Ia	single entity	pentaene	<u>ruber</u>	See mycotycin Ia and mycotycin Ib.
				Burke et al. (1954); Wasserman et al. (1967).
			<u>flavofungini</u>	Uri and Bekesi (1958); Uri et al. (1958); Szabo and Preobrazhenskaya (1962); Reháček (1963); Bognár et al. (1970).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
mycotycin Ib	single entity	pentaene	<u>bruneofungus</u>	Krasil'nikov et al. (1971). Burke et al. (1954); Wasserman et al. (1967). Uri and Bekesi (1958); Uri et al. (1958); Szabo and Preobrazhenskaya (1962); Reháček (1963); Bognár et al. (1970).
mycotycin A			<u>bruneofungus</u>	Krasil'nikov et al. (1971).
mycotycin B				See mycotycin Ia.
mycotrienin	single entity	triene	sp.	See mycotycin Ib.
mycotycin(s)				Coronelli et al. (1967). See mycotycin(s).
Myprozine				Trade name for pimaricin formula- tions.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
Mysteclin				Trade name for amphotericin B formulation.
natamycin				See pimarinin.
neoheptaene	single entity	heptaene		Thirumalachar et al. (1966); Berdy (1974).
neopentaene	single entity	pentaene	sp.	Bhate et al. (1964); Rahalkar (1968).
Nepera				See perimycin.
Nepera 1968				See perimycin.
nistatin				<u>Lapsus calami</u> , see <u>nystatin</u> .
norchainin	single entity	pentaene	sp.	Pandey et al. (1972).
nursimycin		heptaene		Berdy (1974).
nystatin				See nystatin A ₁ , nystatin A ₂ , and nystatin A ₃ .

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
nystatin A ₁	single entity	tetraene	<u>noursei</u>	Hazen and Brown (1950, 1957); Borowski <u>et al.</u> (1971).
			<u>albulus</u>	Rao and Cullen (1958).
			<u>aureus</u>	Tsai <u>et al.</u> (1959, 1960, 1965); Shenin <u>et al.</u> (1969).
			<u>noursei</u> subsp. <u>polifungini</u>	Bradler and Thrum (1963); Kotiuszko <u>et al.</u> (1971, 1972); Roszkowski <u>et al.</u> (1972); Porowska <u>et al.</u> (1972).
nystatin A ₂	single entity	tetraene	<u>noursei</u>	Hazen and Brown (1950, 1957); Borowski <u>et al.</u> (1971).
			<u>albulus</u>	Rao and Cullen (1958).
			<u>aureus</u>	Tsai <u>et al.</u> (1959, 1960, 1965); Shenin <u>et al.</u> (1969).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
nystatin A ₃	single entity	tetraene	<u>noursei</u> subsp. <u>polifungini</u>	Bradler and Thrum (1963); Kotiuszko et al. (1971, 1972); Roszkowski et al. (1972); Porowska et al. (1972).
			<u>noursei</u>	Hazen and Brown (1950, 1957); Borowski et al. (1971).
			<u>albulus</u>	Rao and Cullen (1958).
			<u>aureus</u>	Tsai et al. (1959, 1960, 1965); Shenin et al. (1969).
			<u>noursei</u> subsp. <u>polifungini</u>	Bradler and Thrum (1963); Kotiuszko et al. (1971, 1972); Roszkowski et al. (1972); Porowska et al. (1972).
ochramycin				An octaene, but not antifungal.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
onomycin-I	single entity	tetraene or pentaene	<u>fungicidicus</u> G	Tanaka (1960); Taguchi and Nakano (1957); Arai and Mikami (1969).
ornamycin				Not a polyene, see 17044.
ornomycin-I				<u>Lapsus calami</u> , see <u>onomycin-I</u> .
palifungin				<u>Lapsus calami</u> , see <u>polyfungin</u> .
partricin	single entity	heptaene	<u>aureofaciens</u>	Bruzzese et al. (1972); <u>Bruzzese and Ferrari</u> (1973).
pentaene of Anzai et <u>al.</u>	single entity	pentaene	<u>chromofuscus</u>	Anzai et <u>al.</u> (1960).
pentaene of Arai and Mikami	single entity	pentaene	<u>netropsis</u>	Arai and Mikami (1969).
pentaene of Askarova et <u>al.</u>	single entity	pentaene	sp.	Askarova et <u>al.</u> (1967).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene of Brown and Hazen				See capacidin.
pentaene 1 of Gupta	single entity	pentaene	sp.	Gupta (1965).
pentaene 2 of Gupta	single entity	pentaene	sp.	Gupta (1965).
pentaene or heptaene of Gupta.	single entity	pentaene?	<u>tropicalensis</u>	Gupta (1965).
pentaene of Kalasz et <u>al.</u>	single entity	pentaene	<u>griseocarneus</u>	Kalasz et <u>al.</u> (1968).
pentaene of Kondo et <u>al.</u>	single entity	pentaene	<u>goshikiensis</u>	Kondo et <u>al.</u> (1961, 1962).
pentaene of Maeda				See pentaene 991-A2.
pentaene 1 of Steirman	single entity	pentaene	<u>lavendulae</u>	Steirman (1958).
pentaene of Sukharevich and Shvetsova	single entity	pentaene		Sukharevich and Shvetsova (1971).
pentaene 9/1 or 9/2	single entity	pentaene	<u>robefuscus</u>	Tsyganov et <u>al.</u> (1964).
pentaene 11				See capacidin?

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene 17-41B	single entity	pentaene	sp.	Kuznetsov et al. (1962); Konev (1964).
pentaene 44B/1	single entity	pentaene	<u>netropsis</u>	Tsyganov et al. (1965); Borowski et al. (1965).
pentaene 51	single entity	pentaene	<u>mycoheptinicum</u>	Konev and Tsyganov (1967); Kalasz et al. (1968); Nevinsky (1971).
pentaene 51-10	single entity	pentaene		Egorenkova (1964).
pentaene 56	single entity	pentaene	<u>mycoheptinicum</u>	See rubrochlorin.
pentaene 83	single entity	pentaene	sp.	Sukharevich and Shvetsova (1970a, 1970b).
pentaene 90	single entity	pentaene	sp.	Arai et al. (1954).
pentaene 202/8	single entity	pentaene	<u>robefuscus</u>	Arai et al. (1954).
pentaene 380	single entity	pentaene	<u>aureoversales</u>	Tsyganov et al. (1960, 1964).
				Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene 523-A1	single entity	pentaene	sp.	Okami et al. (1954).
pentaene 523-A2	single entity	pentaene	sp.	Okami et al. (1954); Utahara et al. (1954).
pentaene 523-G1	single entity	pentaene	<u>euroidicus</u>	Okami et al. (1954).
pentaene 523-G2	single entity	pentaene	sp.	Utahara et al. (1954).
pentaene 535-A1	single entity	pentaene	<u>medioidicus</u>	Umezawa et al. (1955).
pentaene 549-A1	single entity	pentaene	<u>euroidicus</u>	Okami et al. (1954); Utahara et al. (1954); Osato et al. (1955).
pentaene 661				Berdy (1974).
pentaene 881/8 or 881/9	single entity	pentaene	<u>robefuscus</u>	Tsyganov et al. (1964).
pentaene 888/1	single entity	pentaene	<u>albus</u>	Tsyganov et al. (1960, 1964).
pentaene 917/1	single entity	pentaene	<u>sterilis</u>	Tsyganov et al. (1964).
pentaene 991-A2	single entity	pentaene	sp.	Maeda et al. (1956).

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene 1070/39 or 1078/39	single entity	pentaene	<u>glaucus</u>	Tsyganov et al. (1964).
pentaene 1079/17	single entity	pentaene	<u>glaucus</u>	Tsyganov et al. (1964).
pentaene 1080/1	single entity	pentaene	<u>glaucus</u>	Tsyganov et al. (1964a); Egorenkova (1964).
pentaene 1130/12				See xanthalyacin A and xanthalyacin B
pentaene 1130/53	single entity	pentaene	sp.	Tsyganov et al. (1964).
pentaene 1130/92	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1130/69	single entity	pentaene		Egorenkova (1964).
pentaene 1138/17 or 1168/17	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1399/11	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1413/6	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1415/10	single entity	pentaene	<u>netropsis</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene 1425/20	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1449/12	single entity	pentaene	sp.	Konev (1964).
pentaene 1453/68	single entity	pentaene	<u>aureoversales</u>	Konev (1964).
pentaene 1454/69	single entity	pentaene	sp.	Tsyganov et al. (1964a); Egorenkova (1964).
pentaene 1477/73	single entity	pentaene	<u>aureoversales</u>	Konev (1964).
pentaene 1477/134	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1490/13	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1491/7	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1579	single entity	pentaene	<u>effluviu</u>	Lindner et al. (1957).
pentaene 1583/13	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1583/52	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1646/15	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1658/2	single entity	pentaene	<u>netropsis</u>	Konev (1964).

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene 1665/3	single entity	pentaene		Egorenkova (1964).
pentaene 1756/2	single entity	pentaene	<u>aureoversales</u>	Konev (1964).
pentaene 1757/53	single entity	pentaene	<u>aureoversales</u>	Konev (1964).
pentaene 1759/54	single entity	pentaene	<u>aureoversales</u>	Konev (1964).
pentaene 1760/8	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1762	single entity	pentaene	<u>sanguineus</u>	Lindner et al. (1957).
pentaene 1769/2	single entity	pentaene	<u>albietriculi</u>	Konev (1964); Egorenkova (1964).
pentaene 1771/8	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1772/6	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1773/7	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1874/18	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1876/41	single entity	pentaene	<u>albietriculi</u>	Konev (1964).
pentaene 1894/1	single entity	pentaene	<u>netropsis</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene 1947/1	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1950/14	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1952/8	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1954/1	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1959/6	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1960/1	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1967/14	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1990/19	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 1993/16	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 2005/1	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 2014/8	single entity	pentaene	<u>albireticuli</u>	Konev (1964).
pentaene 2094/3	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 2333/14	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 2370/5	single entity	pentaene	<u>albireticuli</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene 2381		pentaene		¹ Berdy (1974).
pentaene 2472/6	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 2544/1	single entity	pentaene	<u>candidus</u>	Tsyganov et al. (1964a); Egorenkova (1964).
pentaene 2667/2	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 2811/31	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 2814P	single entity	pentaene	<u>netropsis</u>	Thrum (1959, 1960a, 1960b); Thrum and Dcho (1960); Fügner and Bradler (1963).
pentaene 2824/38	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 2834				See pentaene 20388.
pentaene 2862/10	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 2864/1	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 3440	unknown	pentaene	<u>lavendulae</u>	Unpublished results, NRRL.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene 8085/54	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 8211/54	single entity	pentaene	<u>netropsis</u>	Konev (1964).
pentaene 16749	single entity	pentaene	<u>olivoreticuli</u>	Gauze <u>et al.</u> (1962).
pentaene 20388	single entity	pentaene	<u>violaceo-niger</u>	" Gaumann <u>et al.</u> (1960). (1964); Hütter <u>et al.</u> (1961).
pentaene A.228a	single entity?	pentaene and tetraene?	sp.	Lafourcade (1955); Ball <u>et al.</u> (1956, 1957).
pentaene A.228b	single entity?	pentaene and tetraene?	sp.	Lafourcade (1955); Ball <u>et al.</u> (1956, 1957).
pentaene A.341	single entity	pentaene	sp.	Ball <u>et al.</u> (1957).
pentaene A.688	single entity	pentaene	sp.	Ball <u>et al.</u> (1957).
pentaene A.695	single entity	pentaene	sp.	Ball <u>et al.</u> (1957).
pentaene A.772	single entity	pentaene	sp.	Ball <u>et al.</u> (1957).
pentaene A.786	single entity	pentaene	sp.	Ball <u>et al.</u> (1957).
pentaene A.789	single entity	pentaene	sp.	Ball <u>et al.</u> (1957).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene B-1256	single entity	pentaene	<u>rutgersensis</u>	Thompson et al. (1962).
pentaene BK-217 β	single entity	pentaene	<u>cinnamoneus</u>	Shu and Barbatschi (1971).
pentaene BL-217 α	single entity	pentaene		Berdy (1974).
pentaene BL-217 β	single entity	pentaene		Berdy (1974).
pentaene E1				
pentaene E11				
pentaene G8	single entity	pentaene	<u>anandii</u>	Batra and Bajaj (1965, 1966a, 1966b).
pentaene HA-106	single entity	pentaene	<u>cinnamoneum</u> subsp. <u>sparsum</u>	Rahalkar and Thirumalachar (1968; Locci et al. (1969); Thirumalachar and Rahalkar (1970).
pentaene HA-135	single entity	pentaene	<u>cinnamoneum</u> subsp. <u>sporiferum</u>	Rahalkar and Thirumalachar (1968); Thirumalachar and Rahalkar (1970).

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene HA-145	single entity	pentaene	<u>cinnamoneum</u> subsp. <u>albosporum</u> or <u>alborsporum</u> (sic)	Rahalkar and Thirumalachar (1968); Locci et al. (1969); Thirumalachar and Rahalkar (1970).
pentaene HA-176	single entity	pentaene	<u>cinnamoneum</u> subsp. <u>lanosum</u>	Rahalkar and Thirumalachar (1968); Locci et al. (1969); Thirumalachar and Rahalkar (1970).
pentaene JA 1015	single entity	pentaene		Berdy (1974).
pentaene JA 2250	single entity	pentaene	<u>lavendulae</u>	" Fugner and Bradler (1963).
pentaene JA 2814				See pentaene 2814 P.
pentaene JA 3317	single entity	pentaene	<u>netropsis</u>	" Fugner and Bradler (1963).
pentaene JA 3695	single entity	pentaene	<u>toxytricini</u>	" Fugner and Bradler (1963).
pentaene JA 3708				See filipin.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene JA 3755	single entity	pentaene	<u>venezuelae</u>	"Fugner and Bradler (1963).
pentaene JA 3825	single entity	pentaene	<u>toxytricini</u>	"Fugner and Bradler (1963).
pentaene JA 4007				See filipin.
pentaene JA 4015	single entity	pentaene	<u>paucidiastaticus</u>	"Fugner and Bradler (1963).
pentaene JA 4039	single entity	pentaene	<u>netropsis</u>	"Fugner and Bradler (1963).
pentaene JA 4206	single entity	pentaene	<u>venezuelae subsp. spiralis</u>	"Fugner and Bradler (1963).
pentaene JA 4248	single entity	pentaene	<u>griseolosuffuscus</u>	"Fugner and Bradler (1963).
pentaene JA 4249	single entity	pentaene	<u>griseolosuffuscus</u>	"Fugner and Bradler (1963).
pentaene JA 4250	single entity	pentaene	<u>griseolosuffuscus</u>	"Fugner and Bradler (1963).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene JA 4251	single entity	pentaene	<u>griseolosuffuscus</u>	"Fugner and Bradler (1963).
pentaene JA 4429	single entity	pentaene	<u>venezuelae</u> var. <u>spiralis</u>	"Fugner and Bradler (1963).
pentaene JA 4430	single entity	pentaene	<u>venezuelae</u> var. <u>spiralis</u>	"Fugner and Bradler (1963).
pentaene JA 4495	single entity	pentaene	<u>pentaticus</u> var. <u>jenensis</u>	"Fugner and Bradler (1963).
pentaene JA 4513	single entity	pentaene	<u>netropsis</u>	"Fugner and Bradler (1963).
pentaene JA 4527	single entity	pentaene	<u>venezuelae</u> var. <u>spiralis</u>	"Fugner and Bradler (1963).
pentaene JA 4528	single entity	pentaene	<u>venezuelae</u> var. <u>spiralis</u>	"Fugner and Bradler (1963).
pentaene JA 4531	single entity	pentaene	<u>netropsis</u>	"Fugner and Bradler (1963).
pentaene PA-153	single entity	pentaene	<u>fasciculus</u>	Koe et al. (1958); Chas. Pfizer & Co. (1960); Tanner et al. (1961).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
pentaene T-2636-M	single entity	pentaene	<u>rochei</u> subsp. <u>volubilis</u>	Higashide et al. (1970, 1971a, 1971b).
pentaene X-1019				Bérđy (1974).
pentafungin	single entity	pentaene	<u>antimycoticus</u>	Bérđy and Horváth (1965).
pentamycin				See filipin.
pentaneicin				Bérđy (1974).
perimycin	single entity	pentaene	<u>aminophilus</u>	Oswald et al. (1956); Wooldridge (1960); Borowski et al. (1961); McDaniel et al. (1965).
philipine				See filipin.
Pimafulcin				Trade name for pimaricin-containing formulation.
Pimafulcort				Trade name for pimaricin-containing formulation.

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
Pimarektal				Trade name for pimaricin-containing formulation.
pimaricin	single entity	pentaene	<u>chattanoogaensis</u>	Burns and Holtman (1959); Ceder (1964).
			<u>gilvosporeus</u>	Backus and Dann (1960).
			<u>natalensis</u>	Koninklijke N.V. Nederlandsche Gist-en Spiritusfabriek (1960).
plumbomycin A	single entity	tetraene	<u>plumbeus</u>	Paputskaya et al. (1970); Roman̄kova et al. (1971); Tsyganov et al. (1972).
plumbomycin B	single entity	tetraene	<u>plumbeus</u>	Paputskaya et al. (1970); Roman̄kova et al. (1971); Tsyganov et al. (1972).
polifungin				See nystatin A ₁ , nystatin A ₂ , nystatin A ₃ , and polifungin B.

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
polifungin A ₁				See nystatin A ₁ .
polifungin A ₂				See nystatin A ₂ .
polifungin A ₃				See nystatin A ₃ .
polifungin B	single entity	tetraene	noursei subsp. <u>polifungini</u>	Kotiuszko et al. (1971, 1972); Roszkowski et al. (1972); <u>Borowski et al.</u> (1972).
polyene 1 of Askarova and Sadullaev	single entity	polyene	<u>netropsis</u>	Askarova and Sadullaev (1967).
polyene 2 of Askarova and Sadullaev	single entity	polyene	<u>netropsis</u>	Askarova and Sadullaev (1967).
polyene of Calot and Cercos				See polyene 17732.
polyene of Dimarco <u>et al.</u>	single entity	polyene	<u>peucetius</u>	Societa Farmaceutici Italia (1962); Grein <u>et al.</u> (1963).
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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
polyene of Pal <u>et al.</u>				See tetraene A-435.
polyene? of Sawazaki <u>et al.</u>	single entity	polyene	<u>mashuensis</u>	Sawazaki <u>et al.</u> (1955).
polyene of Tokhtamuratov				See tetraene P-42B and arenomycin B.
polyene(s) of Umezawa <u>et al.</u>		polyene	<u>kasugaensis</u>	Umezawa <u>et al.</u> (1965, 1966, 1967).
polyene 17732	single entity	polyene	<u>erumpens</u>	Calot and Cercos (1963a); Personal communication, Cercos to Pridham, 1969.
polyene R-11	single entity	polyene	sp.	Reháček (1963).
polyene A1-4	single entity	polyene	sp.	Reháček (1963).
polyene Br-61	single entity	polyene	sp.	Reháček (1963).
polyene K-1	single entity	polyene	sp.	Reháček (1963).
polyene Lo-5	single entity	polyene	sp.	Reháček (1963).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
polyene \checkmark PS-3	single entity	polyene	sp.	\checkmark Reháček (1963).
polyene S9-2	single entity	polyene	sp.	\checkmark Reháček (1963).
polyene L7-1 27-1?	single entity	polyene	sp.	\checkmark Reháček (1963).
polyene R2-9	single entity	polyene	sp.	\checkmark Reháček (1963).
polyfungin				See nystatin A_1 , nystatin A_2 , nystatin A_3 , and polifungin B.
polyfungin A				See polifungin.
polyfungin B				See polifungin B.
polyfungin A_1				See nystatin A_1 .
polyfungin A_2				See nystatin A_2 .
Primamycin				Trade name for hamycin- containing formula- tion.
protocidin(e)	single entity	tetraene	sp.	Sakamoto (1957); Arishima et al. (1960).

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TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
protocin	single entity	triene		Bér ^{dy} (1974).
quetomycin	single entity	polyene	<u>lavendulae</u>	Arai and Mikami (1969).
quinquamycin	single entity	pentaene	<u>lavendulae</u>	Arai and Katoh (1958); Sano (1958); Arai et al. (1960).
resistaphyllin	single entity	triene		Bér ^{dy} (1974).
ribocidin				<u>Lapsus calami</u> , see <u>rimocidin</u> .
rimocidin	single entity	tetraene	<u>rimosus</u>	Sobin et al. (1950); Daviss ^{on} et al. (1951, 1960).
rimocydin				<u>Lapsus calami</u> , see <u>rimocidin</u> .
robigocidin	single entity	triene		Bér ^{dy} (1974).
robigocidin A	single entity	triene?	<u>platensis</u>	Arai and Mikami (1969); Misato et al. (1970).
roseofungin	single entity	pentaene	<u>roseoflavus</u> subsp. <u>roseofungini</u>	Vetlugina (1968); Vetlugina et al. (1968); Nikitina and Kazalova (1972).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
rotaventin	mixture	polyene? tetraene + pentaene?	<u>reticuli</u>	Hosoya (1952); Hosoya et al. (1951, 1952a, 1952b).
rubrochlorin	single entity	pentaene	sp.	Konev (1964); Berdy (1974).
sapromycetin	complex			See endomycin and Berdy (1974).
SAX				See amphoteracin B.
Schaals antifungal				Muftic (1968)
sistomycin		polyene?		See sistomycosin.
sistomycosin	single entity	tetraene	<u>viridosporus</u>	Parke, Davis & Co. (1952, 1954); Ehrlich et al. (1955).
<u>Streptomyces</u> <u>sanguineus</u> <u>pentaene</u>				See pentaene 1762.
takamycin	mixture	heptaene + hexaene	<u>takataensis</u>	Iwashita et al. (1962); Chugai <u>Seiyaku</u> Kabushiki Kaisha (1963); Takemoto et al. (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tbilimycin	single entity	heptaene	<u>chartreusis</u> subsp. <u>tbilisus</u>	Shenin <u>et al.</u> (1970).
tennecetin				See pimarinin.
terin A				<u>Lapsus calami</u> , see <u>tetrin A</u> .
terin B				<u>Lapsus calami</u> , see <u>tetrin B</u> .
Terrastatin				Trade name for nystatin- containing formula- tion.
tetraenin A		tetraene		✓Bérdy (1974).
tetraenin B		tetraene		✓Bérdy (1974).
tetraene 1 of Askarova <u>et al.</u>	single entity	tetraene		Askarova <u>et al.</u> (1967).
tetraene 2 of Askarova <u>et al.</u>	single entity	tetraene		Askarova <u>et al.</u> (1967).
tetraene of Bojanowski <u>et al.</u>	single entity	tetraene		Bojanowski <u>et al.</u> (1971).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetraene 1 of Katagiri et al.	single entity	tetraene	<u>albus</u>	Kikuchi (1955); Katagiri et al. (1957).
tetraene 2 of Katagiri et al.	single entity	tetraene	<u>albus</u>	Kikuchi (1955); Katagiri et al. (1957); Sato and Katagiri (1957).
tetraene of Taguchi	single entity	tetraene	<u>feochromonus</u>	Taguchi (1960); Arai and Mikami (1969).
tetraene of Thirumalachar	single entity	tetraene	sp.	Thirumalachar (1970, 1971).
tetraene 9-27	single entity	tetraene	<u>toyocaensis</u>	Arai et al. (1960); Arai and Kuroda (1962).
tetraene 9-48	single entity	tetraene		Arai et al. (1960).
tetraene 18-45	single entity	tetraene		Tokhtamuratov and Silaev (1967); Askarova et al. (1968); Khodzhibaeva and Askarova (1970).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetraene 18-71	single entity	tetraene		Khodzhibaeva and Askarova (1970).
tetraene 18-80	single entity	tetraene		Tokhtamuratov and Silaev (1967); Khodzhibaeva and Askarova (1970); Askarova et al. (1972).
tetraene 44B/1	single entity	tetraene	<u>mycoheptinicum</u>	Konev and Tsyganov (1967).
tetraene 51-10	single entity	tetraene	sp.	Konev (1964).
tetraene 358-A6	single entity	tetraene	<u>fungicidicus A</u>	Okami et al. (1954).
tetraene 380	single entity	tetraene	<u>aureoversales</u>	Konev (1964).
tetraene 535-A1	single entity	tetraene	<u>mediocidicus</u>	Okami et al. (1954).
tetraene 560-A2	single entity	tetraene	<u>fungicidicus G or aureus</u>	Okami et al. (1954).
tetraene 660-C or 660-C1	single entity	tetraene	<u>fungicidicus A</u>	Okami et al. (1954); Utahara et al. (1954).
tetraene 667-A3	single entity	tetraene	sp.	Utahara et al. (1954).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetraene 674-A2	single entity	tetraene	<u>fungicidicus</u> A	Okami et al. (1954).
tetraene 676-C1	single entity	tetraene	<u>mediocidicus</u>	Okami et al. (1954).
tetraene 888/1	single entity	tetraene	<u>albus</u>	Tsyganov et al. (1964).
tetraene 917/1	single entity	tetraene	<u>sterilis</u>	Tsyganov et al. (1964).
tetraene 999-A1	single entity	tetraene	sp.	Utahara et al. (1954).
tetraene 1030/4	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1070/39 or 1078/39	single entity	tetraene	<u>glaucus</u>	Tsyganov et al. (1964).
tetraene 1079/17	single entity	tetraene	<u>glaucus</u>	Tsyganov et al. (1964).
tetraene 1080/1	single entity	tetraene	<u>glaucus</u>	Tsyganov et al. (1964); Egorenkova (1964).
tetraene 1130/12	single entity	tetraene	<u>xantholiticus</u>	Konev and Tsyganov (1962); Severinets and Solov'ev (1963); Solov'ev and Severinets (1965).
tetraene 1130/92	single entity	tetraene	<u>netropsis</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetraene 1138/17 or 1168/17	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1395/6	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1397/5	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1397/6	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1397/11	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1399/11	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1401/5	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1401/11	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1403/2	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1403/5	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1413/6	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1415/10	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1425/20	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1449/12	single entity	tetraene	sp.	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetraene 1453/68	single entity	tetraene	<u>aureoversales</u>	Konev (1964).
tetraene 1459/2	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1471/2	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1477/73	single entity	tetraene	<u>aureoversales</u>	Konev (1964).
tetraene 1477/134	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1490/13	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1491/7	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1491/23	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1492/56	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1493/1	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1493/27	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1519/2	single entity	tetraene	<u>endus</u>	Golyakov et al. (1963).
tetraene 1583/13	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1583/52	single entity	tetraene	<u>netropsis</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetraene 1646/15	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1658/2	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1756/2	single entity	tetraene	<u>aureoversales</u>	Konev (1964).
tetraene 1757/53	single entity	tetraene	<u>aureoversales</u>	Konev (1964).
tetraene 1759/54	single entity	tetraene	<u>aureoversales</u>	Konev (1964).
tetraene 1760/8	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1769/2	single entity	tetraene	<u>albireticuli</u>	Konev (1964); Egorenkova (1964).
tetraene 1771/8	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1772/6	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1773/7	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1874/18	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1876/41	single entity	tetraene	<u>albireticuli</u>	Konev (1964).
tetraene 1894/1	single entity	tetraene	<u>netropsis</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetraene 1947/1	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1950/14	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1952/8	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1954/1	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1959/6	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1960/1	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1967/14	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1990/19	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 1993/16	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 2005/1	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 2014/8	single entity	tetraene	<u>albireticuli</u>	Konev (1964).
tetraene 2094/3	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 2333/14	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 2370/5	single entity	tetraene	<u>albireticuli</u>	Konev (1964).

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TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetraene 2472/6	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 2667/2	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 2811/31	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 2824/38	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 2862/10	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 2864/1	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 7071 RP	single entity	tetraene	sp.	Despois et al. (1956).
tetraene 8085/54	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 8211/54	single entity	tetraene	<u>netropsis</u>	Konev (1964).
tetraene 9971 RP	single entity	tetraene	<u>gascariensis</u>	Rhône-Poulenc (1964); Ninet et al. (1967).
tetraene A.284	single entity	tetraene	sp.	Ball et al. (1957).
tetraene A.288	single entity	tetraene	sp.	Ball et al. (1957).
tetraene A.387	single entity	tetraene	sp.	Ball et al. (1957).
tetraene A.432	single entity	tetraene	sp.	Ball et al. (1957).

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetraene A-435	single entity	tetraene	<u>rimosus</u>	Pal and Nandi (1964, 1970).
tetraene A.862	single entity	tetraene	sp.	Ball et al. (1957).
tetraene B-34				See endomycin A.
tetraene BH 890 α	single entity	tetraene	<u>misionensis</u>	American Cyanamid Co. (1971); Martin and Porter (1972).
tetraene BH 890 β	single entity	tetraene	<u>misionensis</u>	American Cyanamid Co. (1971); Martin and Porter (1972).
tetraene C-6				See chromin.
tetraene J ₄ -B	single entity	tetraene	<u>fungicidicus</u> G	Taguchi and Nakano (1951, 1957).
tetraene JA 3789				See tetramycin.
tetraene JA 3792	single entity	tetraene	<u>rochei</u>	" Fugner and Bradler (1963).
tetraene JA 4265	single entity	tetraene	<u>rochei</u>	" Fugner and Bradler (1963).

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetraene JA 4343	single entity	tetraene	<u>aureofaciens</u>	" Fugner and Bradler (1963).
tetraene MYC-4	single entity	tetraene		Berdy (1974).
tetraene P-42B	single entity	tetraene	<u>tumemacerans</u>	Krasil'nikov and Koveshnikov (1962); Tokhtamuratov and Silaev (1965); Khodzhibaeva and Askarova (1970); Kuimova et al. (1971); <u>Fukushima</u> et al. (1973).
tetraene P-42E				See arenomycin B.
tetraene PA-86	single entity	tetraene	<u>rimosus</u>	Chas. Pfizer & Co. (1954).
tetraene PA-166	single entity	tetraene	<u>glaucus</u>	Koe et al. (1958); <u>Marsh</u> and Rao (1966).
tetraene U-10A				See unamycin.
tetraesin				See tetrahexin.
tetrahexin(e)	single entity	tetraene- hexaene	<u>tetrahexinicus</u>	Craveri et al. (1962); <u>Lepetit S. p. A.</u> (1967); Craveri et al. (1974).

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
tetramedin	single entity	tetraene	<u>mediocidicus</u>	Tsyganov et al. (1973).
tetramycin	single entity	tetraene	<u>rochei</u>	" Fugner and Bradler (1963); Thrum et al. (1970); Dornberger et al. (1971).
tetramycoin A	single entity	tetraene		✓ Berdy (1974).
tetramycoin B	single entity	tetraene		✓ Berdy (1974).
tetrasin				See tetrahexin.
tetrin(e)				See tetrin A and tetrin B.
tetrin A	single entity	tetraene	sp.	Gottlieb and Pote (1960); Pandey et al. (1971); Rinehart et al. (1971).
			<u>erumpens</u>	Calot and Cercos (1963a, 1963b).
tetrin B	single entity	tetraene	sp.	Gottlieb and Pote (1960); Pandey et al. (1971); Rinehart et al. (1971).

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
toyamamycin	single entity	tetraene	<u>erumpens</u>	Calot and Cercos (1963a, 1963b).
toyamycin	single entity	tetraene	<u>toyamaensis</u>	Berdy (1974). Ishibashi (1957a, 1957b, 1960).
trichomycin(s)				See trichomycin A, trichomycin B, and trichomycin C.
trichomycin A	single entity	heptaene	<u>hachijoensis</u>	Hosoya et al. (1952, 1955); <u>Yamaguchi</u> (1954); Tsyganov et al. (1964b); Fursenko et al. (1972).
trichomycin B	single entity	heptaene	<u>hachijoensis</u>	Hosoya et al. (1952, 1955); <u>Yamaguchi</u> (1954); Tsyganov et al. (1964b); <u>Fursenko et al.</u> (1972).
trichomycin C	single entity	heptaene	<u>hachijoensis</u>	Hosoya et al. (1952, 1955); <u>Yamaguchi</u> (1954); Tsyganov et al. (1964b); <u>Fursenko et al.</u> (1972).

continued--

TABLE 1. --Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
trien	single entity	triene	<u>minutisclerotica</u> (<u>Chainia</u>)	Poltorak et al. (1972); Berdy (1974).
trien				See trien 141-18A and trien 141-18B.
trien 141-18A	single entity	triene	sp.	Berdy (1974).
trien 141-18B	single entity	triene		Berdy (1974).
triene				See triene MM8.
triene MM8	single entity	triene	sp. (lost)	Armstrong et al. (1965).
trienin(e)	single entity	triene	sp.	Aszalos et al. (1968, 1972).
unamycin(s)				See unamycin and unamycin A.
unamycin	single entity	tetraene	<u>fungicidicus</u> G	Okami et al. (1954); Utahara et al. (1954); Umezawa et al. (1956, 1959); Matsuoka (1960); Matsuoka and Umezawa (1960).

continued--

TABLE 1.--Continued

Name	Present known or implied nature	Classification	First epithet assigned to producing agent or probable producing agent	Pertinent reference(s)
unamycin A				<u>Lapsus calami</u> , see <u>unamycin</u> .
viridofulvin				See dermostatin A and dermostatin B.
X-factor				See fradycin.
xanthalycin(s)				See xanthalycin A and xanthalycin B.
xanthalycin A	single entity	pentaene or tetraene	<u>xantholiticus</u>	Konev and Tsyganov (1962); Severinets and Solov'ev (1963); Solov'ev and Severinets (1965); Bérdy (1974).
xanthalycin B	single entity	pentaene	<u>xantholiticus</u>	Konev and Tsyganov (1962); Severinets and Solov'ev (1963); Solov'ev and Severinets (1965).
xantholycin(s)				See xanthalycin A and xanthalycin B.
yunamycin				See unamycin.
yurotin				See eurotin A.

TABLE 2. Distribution of species of streptomycetes and streptovorticillia with respect to nature of polyene antifungal antibiotic reputedly produced*

Name of microorganism**	Chemical nature and number of polyene antifungals produced						
	Triene	Tetraene	Pentaene	Hexaene	Heptaene	Octaene	Polyene***
<u>Stm. albus</u>	2	25	32	30	40	None	None
<u>Stm. griseus</u>	None	2	11	5	86	None	None
<u>Stm. venezuelae</u>	1	None	2	1	None	None	None
<u>Stm. lavendulae</u>	2	1	8	None	None	None	1
<u>Stm. graminofaciens</u>	None	None	None	None	None	None	None
<u>Stm. torulosus</u>	None	None	None	None	None	None	None
<u>Stm. diastaticus</u>	None	29	8	None	1	None	None
<u>Stm. flaveolus</u>	None	3	None	None	None	None	None
<u>Stv. reticulum</u>	None	16	33	2	51	None	3
<u>Stv. netropsis</u>	None	24	46	3	23	None	None
Unknown	6	33	42	15	68	None	17

* Numbers reported undoubtedly reflect some duplication of antibiotic identities and the design of research studies or screening programs. The data, however, probably reflect the general situation as it exists in nature. Obviously, screening of species for which no or very few polyene antifungals are reported might be one approach to discovery of new materials.

** Names from key in Pridham (1974).

*** No indication of category of polyene available.

TABLE 3. Provisional key to species and subspecies of streptomycetes and streptovorticillia producing antifungal polyenic antibiotics

1. Color series of Pridham et al. (1958) and Tresner and Backus (1960): None = no aerial mycelium formed; W = white; Y = yellow; R = red; GY = gray; B = blue; GN = green; V = violet; (hyg.) = hygroscopic.
2. Most data based on use of Pridham and Gottlieb chemically-defined basal agar containing respective carbon sources. Cultures incubated 10 days at 28°-30° C. before reading. + = positive utilization; - = no utilization; blanks indicate data not available.
3. Readings indicate amount of vegetative growth, generally after 14 days incubation at 28°-30° C. Results provide some indication of ability to utilize sucrose in a chemically-defined medium.
4. Inhibition (in millimeters) observed after cross-streaking against a known streptomycin producer; readings made after growth of secondary streaks at 28°-30° C. for 5 days.
5. Known or presumed antibiotics produced by strain indicated. Names in parentheses indicate presumptive identifications. AB activity = unidentified antibacterial activity.
6. Original strain designations so far as could be determined; for meanings of acronyms see Pridham, T. G. (1974). Micro-organism Culture Collections: Acronyms and Abbreviations. U.S. Department of Agriculture, Agricultural Research Service, ARS-NC-17, 41 pp.
7. Names based on Pridham et al (1965) and Pridham (1974).

NOTE: In any large compilation such as the following there are bound to be inadvertent errors. The authors would appreciate having such errors brought to their attention. Entries represent the most reliable data available at the present time.

TABLE 3. I. Spores smooth to rough in coiled chains.

STREPTOMYCES ALBUS (ROSSI DORIA) WAKSMAN AND HENRICI

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵		Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR X			D-Arabinose RH	D-Rhamnose RH		
	+	-	+	Very poor	9	AB activity amphotericin B	Stm. albus subsp. _____
	+	-	+	albonoursin P-42A P-42S albofungin tetraene P-42B	arenomycin B INMI P-42	Stm. albus subsp. <u>tumemacerans</u> subsp. nov.	
GY(hyg.)	+	+	+	Excellent	23	9-20B 9-20-F-2 endomycin B helixin D	Stm. albus subsp. _____

STRAINS NONCHROMOGENIC

TETRAENE

GY	+	-	+	Very poor	9	AB activity amphotericin B	Stm. albus subsp. _____
GY	-	-	+			albonoursin P-42A P-42S albofungin tetraene P-42B	Stm. albus subsp. <u>tumemacerans</u> subsp. nov.
GY(hyg.)	+	+	+	Excellent	23	9-20B 9-20-F-2 endomycin B helixin D	Stm. albus subsp. _____

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²				Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
GY(hyg.)	+	+	+	Excellent	33	endomycin B endomycin C helixin D	endomycin A A-158	<u>Stm. albus</u> subsp. _____
GY(hyg.)	+	+	+	Moderate		endomycin B endomycin C helixin D scopafungin	endomycin A UC 2397	<u>Stm. albus</u> subsp. _____
W to GY	-	+	-	Poor	0-3	5-oxytetra- cycline	rimocidin S 3279	<u>Stm. albus</u> subsp. <u>rimosus</u> subsp. nov.
GY	-	+	-	Fair		(tetra- cyclines)	(rimocidin) IMRU 3560	<u>Stm. albus</u> subsp. <u>rimosus</u>
GY	-	+	-	Poor		(tetra- cyclines)	(rimocidin) IMRU 3703	<u>Stm. albus</u> subsp. <u>rimosus</u>
W	+	+		Poor	18	(tetra cylcines)	(rimocidin) RIA 101 (2a) = NCIB 9007	<u>Stm. albus</u> subsp. <u>rimosus</u>

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	-Xylose -D- X	-Arabinose -L- AR	-Rhamnose -L- RH								
W to GY	+	+	+			AB activity tetraene pentaene 888/1	tetraene 888/1	888/1	Stm. albus subsp.		
W to GY	+	-	-			AB activity xanthalycin A xanthalycin B	tetraene 1130/12	LIA 1130/12 = ATCC 27481	Stm. albus subsp.		
GY	+	+	+		Poor	tetraene BH 890β	tetraene BH 890α	NRRL 3609	Stm. albus subsp.		
GY	+	+	+		Poor	tetraene BH 890α	tetraene BH 890β	NRRL 3609	Stm. albus subsp.		
W to GY						AB activity heptaene JA 4343	tetraene JA 4343	IMET JA 4343	Stm. albus subsp.		

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose X	D-Arabinose AR	D-Rhamnose RH								
GY	-	-	+			albonoursin P-42A P-42S albofungin arenomycin B	tetraene P-42B	INMI P-42	Stm. albus subsp. <u>tumemacerans</u>		
None to W to Y	-	+	-	Poor	0	AB activity	tetraene PA-86	4622-21 = Pfizer 6310	Stm. albus subsp.		
GY	-	+	-	Poor	9	AB activity (tetrin B) polyene 17732	(tetrin A)	INTA 17732	Stm. albus subsp.		
GY	-	+	-	Poor	9	AB activity (tetrin A) polyene 17732	(tetrin B)	INTA 17732	Stm. albus subsp.		

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to ⁴ streptomycin		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	X D-Xylose	AR D-Arabinose	RH D-Rhamnose								
PENTAENE											
Y to R to GY	-	-	-	Poor	35	actinomycin	fungichromin	MA-420		<u>Stm. albus</u> subsp.	
GY	+	+	-	Poor		AB activity	fungichromin	JA 3708		<u>Stm. albus</u> subsp.	
Y to R to GY	-	-	-				genimycin	LIA 0174		<u>Stm. albus</u> subsp.	
GY	+	+	-	Poor	35	actinomycin D	(lagosin)	NRRL 2776		<u>Stm. albus</u> subsp. <u>parvullus</u> subsp. nov.	
R to GY	+	+	-	Poor	32	AB activity	misionin	INTA 3944		<u>Stm. albus</u> subsp.	
R to GY	+	+	-	Poor	35	lankacidin bundlin B (moldecidin B)	moldecidin A	1068		<u>Stm. albus</u> subsp. <u>griseofuscus</u> subsp. nov.	

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color	X ¹ -Xylose	AR	RH	Arabinose	Rhamnose						
series	X	AR	RH								
R to GY	+	+	-	Poor	35	lankacidin bundlin B moldcidin A	(moldcidin B)	1068	<u>Stm. albus subsp.</u> <u>griseofuscus</u>		
W to GY	+	+	+	Poor		AB activity tetraene 888/1	pentaene 888/1	888/1	<u>Stm. albus subsp.</u>		
R to GY	+	+	-	Poor	28	lankamycin lankacidin	pentaene 20388	ETH 20388	<u>Stm. albus subsp.</u> <u>griseofuscus</u>		
GY	+	+	-			AB activity	pentaene JA 4007	IMET JA 4007	<u>Stm. albus subsp.</u>		
W to Y to GY	+	+	-	Poor		AB activity	pentaene JA 4015	IMET JA 4015	<u>Stm. albus subsp.</u>		
GY	+	+	-			AB activity	pentaene JA 4248	IMET JA 4248	<u>Stm. albus subsp.</u>		

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Aerial mycelium color series	D-Xylose X	L-Arabinose AR	L-Rhamnose RH	Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
GY	+	+	-	-	-		AB activity	pentaene JA 4249	IMET JA 4249	<u>Stm. albus</u> subsp.
GY	+	+	-	-	-		AB activity	pentaene JA 4250	IMET JA 4250	<u>Stm. albus</u> subsp.
GY	+	+	-	-	-		AB activity	pentaene JA 4251	IMET JA 4251	<u>Stm. albus</u> subsp.
GY	+	+	-	-	-		lankamycin lankacidin bundlin B T-2636-D T-2636-E T-2636-F	pentaene T-3636-M	T-2636 = ATCC 21250	<u>Stm. albus</u> subsp. <u>griseofuscus</u>
W to GY	-	-	-	-	-		AB activity tetraene 1130/12 xanthalycin B	xanthalycin A	LIA 1130/12	<u>Stm. albus</u> subsp.

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR	D-Arabinose RH	D-Rhamnose RH				
W to GY	-	-	-		AB activity tetraene 1130/12 xanthalycin A	LIA 1130/12	<u>Stm. albus</u> subsp.
GY(hyg.)	+	+	+	23	endomycin A 9-20B 9-20-F-2 helixin D	III. 9-20	<u>Stm. albus</u> subsp.
GY(hyg.)	+	+	+	33	endomycin A endomycin C helixin D	A-158	<u>Stm. albus</u> subsp.
GY(hyg.)	+	+	+	Moderate	endomycin A helixin D scopafungin	UC 2397	<u>Stm. albus</u> subsp.

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Aerial mycelium color		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
series	X	D-Xylose	L-Arabinose	L-Rhamnose									
R	+	+	+	-	Poor to fair	17		neomycin A neomycin B neomycin C (neomycin D) (neomycin E) (neomycin F)	fradycin	IMRU 3535		<u>Stm. albus</u> subsp. <u>fradiae</u> subsp. nov.	
R	+	+	+	-	Poor	20		neomycins neomycin complex	(fradycin) (fradycin)	A-1404 320		<u>Stm. albus</u> subsp. <u>fradiae</u> <u>Stm. albus</u> subsp. <u>fradiae</u>	
R	+	+	+	-	Poor	20		neomycins	(fradycin)	KA T-121-8		<u>Stm. albus</u> subsp. <u>fradiae</u>	
GY								AB activity	hexaene 833/1 = (endomycins?)	833/1		<u>Stm. albus</u> subsp.	
GY									hexaene 854/14 = (endomycins?)	854/14		<u>Stm. albus</u> subsp.	

continued--

TABLE 3. I.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	Arabinose	Xylose	Rhamnose					
	AR	X	RH					
GY						AB activity	858/14	<u>Stm. albus</u> subsp. _____
						hexaene 858/14 = (endomycins?)		
GY						AB activity	878/6	<u>Stm. albus</u> subsp. _____
						hexaene 878/6 = (endomycins?)		
GY(hyg.)						AB activity	LIA 1030/4	<u>Stm. albus</u> subsp. _____
						hexaene 1030/4 = (endomycins?)		
GY(hyg.)						AB activity	LIA 1395/6	<u>Stm. albus</u> subsp. _____
						hexaene 1395/6 = (endomycins?)		
GY(hyg.)							LIA 1397/5	<u>Stm. albus</u> subsp. _____
						hexaene 1397/5 = (endomycins?)		

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	Xylitol - Arabinose - Rhamnose					
GY (hyg.)				AB activity	LIA 1397/6	<u>Stm. albus subsp.</u>
				hexaene 1397/6 = (endomycins?)		
				hexaene 1397/11 = (endomycins?)	LIA 1397/11	<u>Stm. albus subsp.</u>
GY (hyg.)				AB activity	LIA 1401/5	<u>Stm. albus subsp.</u>
				hexaene 1401/5 = (endomycins?)		
GY (hyg.)				hexaene 1401/11 = (endomycins?)	LIA 1401/11	<u>Stm. albus subsp.</u>
				hexaene 1403/2 = (endomycins?)	LIA 1403/2	<u>Stm. albus subsp.</u>

continued--

TABLE 3. I. --Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D- Xylose AR RH X					
GY (hyg.)				hexaene 1403/5 = (endomycins?)	LIA 1403/5	<u>Stm. albus</u> subsp. _____
GY (hyg.)				AB activity hexaene 1459/2 = (endomycins?)	LIA 1459/2	<u>Stm. albus</u> subsp. _____
GY (hyg.)				AB activity hexaene 1471/2 = (endomycins?)	LIA 1471/2	<u>Stm. albus</u> subsp. _____
GY (hyg.)				AB activity hexaene 1491/23 = (endomycins?)	LIA 1491/23	<u>Stm. albus</u> subsp. _____
GY (hyg.)				AB activity hexaene 1492/56 = (endomycins?)	LIA 1492/56	<u>Stm. albus</u> subsp. _____

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose ³ agar		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	X D-Xylose L-Arabinose Rhamnose	X AR	RH	X D-Xylose L-Arabinose Rhamnose	X AR	RH					
GY(hyg.)							AB activity	hexaene 1493/1 = (endomycins?)	LIA 1493/1	Stm. albus	subsp.
GY(hyg.)								hexaene 1493/27 = (endomycins?)	LIA 1493/27	Stm. albus	subsp.
GY(hyg.)							AB activity	hexaene 1519/2 = (endomycins?)	LIA 1519/2	Stm. albus	subsp.
Y to GY							AB activity	hexaene JA 4029	IMET JA 4029	Stm. albus	subsp.
GY	+	-	+	Very poor			AB activity amphotericin A	amphotericin B	M 4575	Stm. albus	subsp.

HEPTAENE

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose D-Arabinose D-Rhamnose AR RH X					
GY	+	+	Excellent	35	tetracycline 7-chlortetra- cycline (ayfactin B)	(ayfactin A) A-377 <u>Stm. albus subsp. aureofaciens</u>
GY	+	+	Excellent	23	7-chlortetra- cycline (ayfactin B)	(ayfactin A) NRRL B-1286 <u>Stm. albus subsp. aureofaciens</u>
GY	+	+	Poor	14	tetracycline 7-chlortetra- cycline (ayfactin B)	(ayfactin A) NRRL B-1287 <u>Stm. albus subsp. aureofaciens</u>
GY	+	+	Poor	22	tetracycline 7-chlortetra- cycline (ayfactin B)	(ayfactin A) NRRL B-1288 <u>Stm. albus subsp. aureofaciens</u>
GY	-	-	Moderate	22	tetracycline 7-chlortetra- cycline (ayfactin B)	(ayfactin A) ATCC 11989 <u>Stm. albus subsp. aureofaciens</u>

continued--

TABLE 3. I.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					
	X	AR	RH					
GY						7-chlortetra- cycline (ayfactin B)	Duggar	<u>Stm. albus subsp. aureofaciens</u>
GY						7-chlortetra- cycline (ayfactin B)	Sa	<u>Stm. albus subsp. aureofaciens</u>
GY						7-chlortetra- cycline (ayfactin B)	Sb	<u>Stm. albus subsp. aureofaciens</u>
GY						7-chlortetra- cycline (ayfactin B)	Kaplan et al.	<u>Stm. albus subsp. aureofaciens</u>
GY						tetracycline 7-chlortetra- cycline ayfactin B	Bristol	<u>Stm. albus subsp. aureofaciens</u>

continued--

TABLE 3. I.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution-sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
GY					7-chlortetra-cycline (ayfacterin B)	(ayfacterin A)	MTHU 740	<u>Stm. albus subsp. aureofaciens</u>
GY					7-chlortetra-cycline (ayfacterin B)	(ayfacterin A)	Maeda et al.	<u>Stm. albus subsp. aureofaciens</u>
GY					7-chlortetra-cycline (ayfacterin B)	(ayfacterin A)	MTHU 690	<u>Stm. albus subsp. aureofaciens</u>
GY					7-chlortetra-cycline (ayfacterin B)	(ayfacterin A)	MTHU 732	<u>Stm. albus subsp. aureofaciens</u>
GY					7-chlortetra-cycline Activity X (γ, β, β') (ayfacterin B)	(ayfacterin A)	Lederle Louisiana isolate	<u>Stm. albus subsp. aureofaciens</u>

continued--

TABLE 3. I.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	U-Xylose	U-Arabinose	U-Rhamnose					
GY						7-chlortetra- cycline (ayfactin B)	A-64a	<u>Stm. albus subsp. aureofaciens</u>
GY						7-chlortetra- cycline (ayfactin B)	A-64b	<u>Stm. albus subsp. aureofaciens</u>
GY	+	+	-	Excellent	35	tetracycline 7-chlortetra- cycline (ayfactin A)	A-377	<u>Stm. albus subsp. aureofaciens</u>
GY	+	+	-	Excellent	23	7-chlortetra- cycline (ayfactin A)	NRRL B-1286	<u>Stm. albus subsp. aureofaciens</u>
GY	+	+	-	Poor	14	tetracycline 7-chlortetra- cycline (ayfactin A)	NRRL B-1287	<u>Stm. albus subsp. aureofaciens</u>

continued--

TABLE 3. I.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution-sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	Arabinose	Rhamnose					
	X	AR	RH					
GY	+	+	-	Poor	22	tetracycline 7-chlortetracycline (ayfactin A)	NRRL B-1288	Stm. albus subsp. <u>aureofaciens</u>
GY	-	-	-	Moderate	22	tetracycline 7-chlortetracycline (ayfactin A)	ATCC 11989	Stm. albus subsp. <u>aureofaciens</u>
GY						7-chlortetracycline (ayfactin A)	Duggar	Stm. albus subsp. <u>aureofaciens</u>
GY						7-chlortetracycline (ayfactin A)	Sa	Stm. albus subsp. <u>aureofaciens</u>

continued--

TABLE 3. I.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					
GY						7-chlortetra- cycline (ayfactivin A)	Sb	<u>Stm. albus subsp. aureofaciens</u>
GY						7-chlortetra- cycline (ayfactivin A)	Kaplan et <u>al.</u>	<u>Stm. albus subsp. aureofaciens</u>
GY						tetracycline 7-chlortetra- cycline (ayfactivin A)	Bristol	<u>Stm. albus subsp. aureofaciens</u>
GY						7-chlortetra- cycline (ayfactivin A)	MTHU 740	<u>Stm. albus subsp. aureofaciens</u>
GY						7-chlortetra- cycline (ayfactivin A)	Maeda et <u>al.</u>	<u>Stm. albus subsp. aureofaciens</u>

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose X AR RH					
GY				7-chlortetra- cycline (ayfactin A)	MTHU 690	<u>Stm. albus subsp. aureofaciens</u>
GY				7-chlortetra- cycline (ayfactin A)	MTHU 732	<u>Stm. albus subsp. aureofaciens</u>
GY				7-chlortetra- cycline Activity X (γ, β, β') (ayfactin A)	Lederle Louisiana isolate	<u>Stm. albus subsp. aureofaciens</u>
GY				7-chlortetra- cycline (ayfactin A)	A-64a	<u>Stm. albus subsp. aureofaciens</u>
GY				7-chlortetra- cycline (ayfactin A)	A-64b	<u>Stm. albus subsp. aureofaciens</u>

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷	
Aerial mycelium color series	D-Xylose X	D-Arabinose AR	D-Rhamnose RH					
GY	-	-	-	Poor	32	tetracycline 7-chlortetra- cycline	NRRL 3878	Stm. albus subsp. <u>aureofaciens</u>
Y	+	+	-	Poor	23	AB activity	1968	Stm. albus subsp.
W to GY						AB activity tetraene JA 4343	IMET JA 4343	Stm. albus subsp.
W to Y						AB activity heptaene JA 3453	IMET JA 3453	Stm. albus subsp.
POLYENE								
GY	-	+	-			kasugamycin aureothricin unioleuin	M338 = ATCC 15714	Stm. albus subsp.
						polyene(s) of Umezawa et al.		

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²				Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
GY	-	+	-	Poor	9	AB activity (tetrin A) (tetrin B)	polyene 17732 INTA 17732	Stm. albus subsp. _____
STRAINS CHROMOGENIC								
TRIENE								
GY to Y						trien 141-18B	trien 141-18A 141-18	Stm. albus subsp. _____
GY to Y						trien 141-18A	trien 141-18B 141-18	Stm. albus subsp. _____
TETRAENE								
GY	+	+	+	Poor	14		antimycoins complex IMRU 3569	Stm. albus subsp. _____
R to GY	+	+	-	Excellent		AB activity	chromin C-6	Stm. albus subsp. _____
GY	+	+	+				flavovirido- mycin LIA 0530	Stm. albus subsp. _____

continued--

TABLE 3. I.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose + X	D-Arabinose + AR	D-Rhamnose + RH								
GY	+	+	+		26	guanamycin	guanamycin	IAUPe 6617		Stm. albus subsp. <u>guanamiceticus</u>	subsp. nov.
W to GY	-	-	-			AB activity	tetraene 358-A6	358-A6		Stm. albus subsp.	
GY (hyg.)	-	-	-								
GY	+	+	+			AB activity	lienomycin	INA 478/66		Stm. albus subsp.	
R	+	+	-		35	AB activity	pentaene 202/8	202/8 = LIA 0059		Stm. albus subsp.	
GY						AB activity	pentaene 1454/69	LIA 1454/69		Stm. albus subsp.	
GY	+	+	-		35	AB activity	pentaene G8	g8 = ATCC 19388		Stm. albus subsp.	

continued--

TABLE 3. I.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	MP-Xylose	MP-Arabinose	MP-Rhamnose					
W to R					AB activity	pentaene JA 3695	IMET JA 3695	<u>Stm.</u> <u>albus</u> subsp. _____
W to R					AB activity	pentaene JA 3825	IMET JA 3825	<u>Stm.</u> <u>albus</u> subsp. _____
Y to GY					AB activity	pentaene JA 4206	IMET JA 4206	<u>Stm.</u> <u>albus</u> subsp. _____
Y to GY					AB activity	pentaene JA 4429	IMET JA 4429	<u>Stm.</u> <u>albus</u> subsp. _____
Y to GY					AB activity	pentaene JA 4430	IMET JA 4430	<u>Stm.</u> <u>albus</u> subsp. _____
Y to GY					AB activity	pentaene JA 4527	IMET JA 4527	<u>Stm.</u> <u>albus</u> subsp. _____
Y to GY					AB activity	pentaene JA 4528	IMET JA 4528	<u>Stm.</u> <u>albus</u> subsp. _____

continued--

TABLE 3. I. --Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵		Strain designation ⁶	Name ⁷
Aerial mycelium color	CD-Xylose	CD-Arabinose	CD-Rhamnose					
series	X	AR	RH	agar ³				
GY	-	-	-	Poor	35	questionmycin A	IPCR-31	<u>Stm. albus</u> subsp. _____
						questionmycin B		
R	-	-	-	Poor	16	bandamycin A bandamycin B	Meiji (Oda) = ATCC 23914	<u>Stm. albus</u> subsp. _____ <u>goshikiensis</u> subsp. nov.
						HEXAENE mycelin IMO		
GY	+	+	+	Excellent	35	HEPTAENE levorin A ₂	1587-Z2	<u>Stm. albus</u> subsp. _____
Y to R	+	+	+				7045/1 = LIA 0704	<u>Stm. albus</u> subsp. _____
						CHROMOGENICITY UNKNOWN TETRAENE		
W to GY	+	+	-			plumbomycin B hexaene 0570	LIA 0570	<u>Stm. albus</u> subsp. _____
						plumbomycin A		

continued--

TABLE 3. I.---Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose	L-Arabinose	L-Rhamnose								
W to GY	+	+	-			plumbomycin A hexaene 0570	plumbomycin B hexaene 0570	LIA 0570	<u>Stm. albus</u>	subsp.	
GY						HEXAENE					
						non-polyene + other activity	hexamycin	4/122	<u>Stm. albus</u>	subsp.	
W to GY	+	+	-			plumbomycin A plumbomycin B	hexaene 0570	LIA 0570	<u>Stm. albus</u>	subsp.	

continued--

TABLE 3. II. Spores smooth to rough in flexuous chains to chains occurring as large aberrant loops or hooks.

STREPTOMYCES GRISEUS (KRAINSKY) WAKSMAN AND HENRICI


Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	Xylitol X	Arabinose AR	Rhamnose RH								
None to W	+	-	-			AB activity	(flavofungin)	INMI 2-4	Stm. griseus subsp.		
None to Y	+	+	-	4	4	desertomycin flavofungin B	flavofungin A	NRRL 2805	Stm. griseus subsp.		
None to Y	+	+	-	4	4	desertomycin flavofungin A	flavofungin B	NRRL 2805	Stm. griseus subsp.		
Y	+	+	-	5	5	AB activity mycotocin Ib	mycotocin Ia	ATCC 3348	Stm. griseus subsp.		

STRAINS NONCHROMOGENIC

PENTAENE

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	X	CH ₂ -Xylose	CH ₂ -Arabinose	CH ₂ -Rhamnose							
None to W to R	+	+	+	-				mycotocin Ia	SA 9	<u>Stm. griseus</u>	subsp. _____
Y	+	+	+	-	Excellent	5	AB activity	mycotocin Ib	ATCC 3348	<u>Stm. griseus</u>	subsp. _____
None to W to R	+	+	+	-				mycotocin Ib	SA 9	<u>Stm. griseus</u>	subsp. _____
W to Y	+	+	+	+			AB activity	pentaene 2544/1	LIA 2544/1	<u>Stm. griseus</u>	subsp. _____
Y	+	+	+	-	Poor	22	AB activity hexaene B-1256	pentaene B-1256	IMRU 3350 = ATCC 3350 = NRRL B-1256	<u>Stm. griseus</u>	subsp. _____
Y	+							<div style="text-align: center;">  HEXAENE </div>		<u>Stm. griseus</u>	subsp. _____

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵		Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose - + -	D-Arabinose - + -	D-Rhamnose - + -					
Y	+	+	-	Excellent	25	AB activity? heptaene 3326	IMRU 3326	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	Poor	17-22	AB activity pentaene B-1256	IMRU 3350 = ATCC 3350 = NRRL B-1256	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	Poor	20	AB activity ascosin B antimycins	NRRL 2419	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	Poor	20	AB activity ascosin A antimycins	NRRL 2419	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	Poor	7	AB activity candidicin B candidicin C antimycins	IMRU 3570	<u>Stm. griseus</u> subsp. _____

HEPTAENE

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose = X = AR = RH	D-Arabinose = AR = RH	D-Rhamnose = AR = RH				
Y	+	+	-	Sens.		candidicin A IMRU 3633	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	7	AB activity candidicin A candidicin C antimycins	candidicin B IMRU 3570	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	7	AB activity candidicin A candidicin B antimycins	candidicin C IMRU 3570	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	Poor	champamycin B champavatin	champamycin A 1033	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	Poor	champamycin B champavatin	champamycin A 1038	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	Poor	champamycin A champavatin	champamycin B 1033	<u>Stm. griseus</u> subsp. _____

continued--

TABLE 3. II.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					
Y	+	+	-	Poor		champamycin A champavatin	1038	Stm. <u>griseus</u> subsp. _____
Y	+	+	-	Poor	Sens.	AB activity	SC-3105	Stm. <u>griseus</u> subsp. _____
Y	+	+	-	Poor		AB activity levorin A ₁ levorin A ₂ levorin A ₃ levorin B levoristatin	26/I	Stm. <u>griseus</u> subsp. _____
Y	+	+	-	Poor		AB activity levorin A ₀ levorin A ₂ levorin A ₃ levorin B levoristatin	26/I	Stm. <u>griseus</u> subsp. _____

continued--

TABLE 3. II.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
Y	+	+	-	Poor		AB activity levorin A ₀ levorin A ₁ levorin A ₃ levorin B levoristatin	levorin A ₂	Stm. <u>griseus</u> subsp. _____
Y	+	+	-	Poor		AB activity levorin A ₀ levorin A ₁ levorin A ₂ levorin B levoristatin	levorin A ₃	Stm. <u>griseus</u> subsp. _____
Y	+	+	-	Poor		AB activity levorin A ₀ levorin A ₁ levorin A ₂ levorin A ₃ levoristatin	levorin B	Stm. <u>griseus</u> subsp. _____

continued---

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR X	D-Arabinose RH	D-Rhamnose				
Y						levorin complex 243 = LIA 0027	<u>Stm. griseus</u> subsp. _____
Y	+	-			AB activity	levorin complex 248	<u>Stm. griseus</u> subsp. _____
					levoristatin	levorin complex 879	<u>Stm. griseus</u> subsp. _____
Y	+	+	-		AB activity	levorin complex 1437-19	<u>Stm. griseus</u> subsp. _____
Y	+	+	-			levorin complex 5207/1	<u>Stm. griseus</u> subsp. _____
Y	+	+	+	11		levorin complex INA 1565/53	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	13	AB activity	levorin complex INA 13195/54	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	15-28	AB activity levorin A ₁ levorin A ₂ levorin A ₃ levorin B levoristatin antimycin A	levorin A ₀ INMI 2725	<u>Stm. griseus</u> subsp. _____

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵		Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR	Arabinose RH						
Y	+	+	Poor	15-28	AB activity levorin A ₀ levorin A ₂ levorin A ₃ levorin B levoristatin antimycin A	levorin A ₁	INMI 2725	<u>Stm. griseus</u> subsp. _____
Y	+	+	Poor	15-28	AB activity levorin A ₀ levorin A ₁ levorin A ₃ levorin B levoristatin antimycin A	levorin A ₂	INMI 2725	<u>Stm. griseus</u> subsp. _____
Y	+	+	Poor	15-28	AB activity levorin A ₀ levorin A ₁ levorin A ₂ levorin B levoristatin antimycin A	levorin A ₃	INMI 2725	<u>Stm. griseus</u> subsp. _____

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	Xylose C ¹⁴	AR	RH	Arabinose C ¹⁴	Rhamnose C ¹⁴						
Y	+	+	-		Poor	15-28	AB activity levorin A ₀ levorin A ₁ levorin A ₂ levorin A ₃ levoristatin antimycin A	levorin B	INMI 2725	Stm. <u>griseus</u>	subsp. _____
Y	+	+	-					levorin complex	396 selectant	Stm. <u>griseus</u>	subsp. _____
Y	+	+	-					levorin complex	12-13-15 selectant	Stm. <u>griseus</u>	subsp. _____
Y	+	+	-				AB activity antimycin A	heptaene 2/49	UEMP 2/49	Stm. <u>griseus</u>	subsp. _____

Continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²				Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
Y	+	+	-			AB activity antimycin A	heptaene 3/49 UEMP 3/49	<u>Stm. griseus</u> subsp. _____
Y							heptaene 123.18 CBS 123.18	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	Poor	23	AB activity	heptaene 757 757	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	Excellent	21	1645 P ₂	heptaene 1645 P ₁ IAUFPe 1645	<u>Stm. griseus</u> subsp. _____
Y		+			Sens.	AB activity	heptaene 2339 complex (2) = (candicidin) INMI 2339	<u>Stm. griseus</u> subsp. _____
Y		+			Sens.	AB activity	heptaene 2340 = (candicidin) INMI 2340	<u>Stm. griseus</u> subsp. _____
Y		+			Sens.	AB activity	heptaene 2350 = (candicidin) INMI 2350	<u>Stm. griseus</u> subsp. _____

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose X	L-Arabinose AR	L-Rhamnose RH	X	Y						
Y	+	+	-	+	Sens.	heptaene 2789 complex (2) = (candididin)	INMI 2789	Stm. <u>griseus</u> subsp.			
Y	+	+	-	+	Excellent	heptaene 3007	Scudder 19741	Stm. <u>griseus</u> subsp.			
Y	+	+	-	+	Poor	heptaene 3307	ATCC 3307	Stm. <u>griseus</u> subsp.			
Y	+	+	-	+	Excellent	heptaene 3326 hexaene 3326	IMRU 3326	Stm. <u>griseus</u> subsp.			
Y	+	+	-	+	Excellent	heptaene 3329	ATCC 3329	Stm. <u>griseus</u> subsp.			
Y	+	+	-	+	Excellent	heptaene 3351	ATCC 3351	Stm. <u>griseus</u> subsp.			
Y	+	+	-	+	Poor	heptaene 4878	ATCC 4878	Stm. <u>griseus</u> subsp.			

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose X	l-Arabinose AR	l-Rhamnose RH								
Y	+	+	-	Excellent		AB activity	heptaene 6246	ATCC 6246	Stm. <u>griseus</u> subsp.		
Y	+	+	-	Excellent		AB activity	heptaene 10246	ATCC 10246	Stm. <u>griseus</u> subsp.		
Y	+						heptaene A-2	IMRU	Stm. <u>griseus</u> subsp.		
Y	+						heptaene A-3	IMRU	Stm. <u>griseus</u> subsp.		
Y	+						heptaene A-10	IMRU	Stm. <u>griseus</u> subsp.		
Y	+						heptaene A-12	IMRU	Stm. <u>griseus</u> subsp.		
Y	+						heptaene A-13	IMRU	Stm. <u>griseus</u> subsp.		
Y	+						heptaene A-15	IMRU	Stm. <u>griseus</u> subsp.		
Y	+						heptaene A-16	IMRU	Stm. <u>griseus</u> subsp.		
Y	+						heptaene A-17	IMRU	Stm. <u>griseus</u> subsp.		

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²									
Aerial mycelium color series	l-Xylose	l-Arabinose	l-Rhamnose	Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷	
	X	AR	RH						
Y	+						heptaene A-18	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+						heptaene A-21	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+						heptaene A-26	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+					hexaene initially	heptaene A-28	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+						heptaene A-29	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+						heptaene A-31	IMRU (dead)	<u>Stm. griseus</u> subsp. _____
Y	+						heptaene A-34	IMRU (dead)	<u>Stm. griseus</u> subsp. _____
Y	+						heptaene A-35 (capacity to produce later lost)	IMRU	<u>Stm. griseus</u> subsp. _____

continued--

TABLE 3. II.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
Y	+					heptaene A-37	IMRU (dead)	<u>Stm. griseus</u> subsp. _____
Y	+					heptaene B-10	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+					heptaene B-24	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+					heptaene B-27	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+					heptaene B-31	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+					heptaene C-6	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+					heptaene C-10	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+					heptaene C-16	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+					heptaene D-4	IMRU	<u>Stm. griseus</u> subsp. _____
Y	+	+	-	Excellent	6	heptaene G 83	Fw 3377 = ATCC 14155	<u>Stm. griseus</u> subsp. _____

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose ³ agar		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶ Name ⁷	
Aerial mycelium color series	X	AR	RH	l-Arabinose	l-Rhamnose				
STRAINS ONLY PARTIALLY CHARACTERIZED WITH STRAIGHT TO FLEXUOUS CHAINS OF SPORES (No available information on spore-wall ornamentation.)									
STRAINS NONCHROMOGENIC									
HEPTAENE									
Y	+	+	-			2 other antifungals		H-5592	Stm. <u>griseus</u> subsp. _____
Y	+	+	-			2 other antifungals		H-5598	Stm. <u>griseus</u> subsp. _____
STRAINS CHROMOGENIC									
TETRAENE									
	+	+	+			tetraene	358-A6	358-A6	Stm. <u>griseus</u> subsp. _____ or Stm. <u>venezuelae</u> subsp. _____
R to GY	-	-	-			phaeochromin = (feochromin)	tetraene of Taguchi		Stm. <u>griseus</u> subsp. _____ or Stm. <u>venezuelae</u> subsp. _____

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose ³ agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose X AR RH					
PENTAENE						
W				pentaene 523-A1 = (eurocidin?)	523-A1	possible streptovorticillium
W				pentaene 523-G1	523-G1	possible streptovorticillium
HEXAENE						
Y				heptaene 1 of Nefelova and Pozmogova	hexaene 1 of Nefelova and Pozmogova	<u>Stm. griseus</u> subsp. _____
Y				heptaene 2 of Nefelova and Pozmogova	hexaene 2 of Nefelova and Pozmogova	<u>Stm. griseus</u> subsp. _____
HEPTAENE						
W to Y	- - -			abikoviromycin	(trichomycin A) 489-C2	possible streptovorticillium

continued--

TABLE 3. II.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose X	l-Arabinose AR	l-Rhamnose RH								
Y						hexaene 1 of Nefelova and Pozmogova	heptaene 1 of Nefelova and Pozmogova			<u>Stm. griseus</u> subsp. _____	
Y						hexaene 2 of Nefelova and Pozmogova	heptaene 2 of Nefelova and Pozmogova			<u>Stm. griseus</u> subsp. _____	
W to Y	+	+	+				heptaene 603-A1	603-A1		possible streptoverticillium	
W to Y	+	-	+				heptaene 604-A1	604-A1		possible streptoverticillium	

continued--

TABLE 3. III. Spores smooth to rough in straight chains.

STREPTOMYCES VENEZUELAE EHRLICH ET AL.

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to ⁴ streptomycin		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose X	l-Arabinose AR	l-Rhamnose RH								
STRAINS NONCHROMOGENIC											
TRIENE											
Y to GY	+	+	-	Poor	12	trienine		SC 3725 = NRRL 3424		<u>Stm. venezuelae</u>	subsp. _____
STRAINS CHROMOGENIC											
PENTAENE											
R to GY	-	-	-	Poor	35	AB activity pentaene	202/8	LIA 0059		<u>Stm. venezuelae</u>	subsp. _____
R to V to GY						AB activity pentaene	JA 3755	IMET JA 3755		<u>Stm. venezuelae</u>	subsp. _____
HEXAENE											
R to GY	+	+	-	Fair		chlorampheni- col	fradycin	KA-281 = I 337 = ATCC 21405		<u>Stm. venezuelae</u>	subsp. _____
						bottromycin A ₂				<u>venezuelae</u> (original name Kitasatoa <u>kauaiensis</u> ; may be perfect stage)	
						bottromycin B					

continued--

TABLE 3. IV. Spores smooth to rough in hooks, open-looks, or greatly extended coils
(typical Retinaculiaperti coils).

STREPTOMYCES LAVENDULAE (WAKSMAN AND CURTIS) WAKSMAN AND HENRICI

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					

STRAINS CHROMOGENIC

PENTAENE

R	-	+	-	Poor		actithiazic acid	aliomycin	Nakazawa 2222	<u>Stm. lavendulae</u> subsp. <u>virginiae</u> subsp. nov.
R	-	+	-	Poor		actithiazic acid	aliomycin	IFO 3125	<u>Stm. lavendulae</u> subsp. <u>virginiae</u>
R	+	+	-	Excellent	35	akimycin complex	quinquamycin	E 20-27	<u>Stm. lavendulae</u> subsp. <u>lavendulae</u>
R	-	-	-	Poor	33	strepto- thricin complex	pentaene 3440	IMRU 3440	<u>Stm. lavendulae</u> subsp. <u>lavendulae</u>

continued--

TABLE 3. IV.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color	D-Xylose L-Arabinose L-Rhamnose					
series	X	AR	RH			
GY to V				AB activity	pentaene JA 2250	Stm. <u>lavendulae</u> subsp. _____
GY	-	-	Poor	35 questionomycin A questionomycin B	pentaene of Anzai et al. IPCR-31	Stm. <u>lavendulae</u> subsp. _____
R	-	-	Poor	strepto- thricin complex	pentaene of Steirman 3440-14	Stm. <u>lavendulae</u> subsp. <u>lavendulae</u>
R				POLYENE quetomycin		Stm. <u>lavendulae</u> subsp. _____

continued--

TABLE 3. IV. --Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose X	D-Arabinose AR	Czapek's solution- sucrose agar ³				
STRAINS ONLY PARTIALLY CHARACTERIZED WITH CHAINS OF SPORES SUGGESTIVE OF STM. LAVENDULAE							
TRIENE							
GY						mycotrienin E 784	Stm. <u>lavendulae</u> subsp. _____
GY						mycotrienin E 953	Stm. <u>lavendulae</u> subsp. _____
STRAINS CHROMOGENIC							
TETRAENE OR PENTAENE							
GY				arvomycin moldicidin		onomycin-I J4	Stm. <u>lavendulae</u> subsp. _____

continued--

TABLE 3. V. Spores spiny in coiled chains.

STREPTOMYCES DIASTATICUS (KRAINSKY) WAKSMAN AND HENRICI

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color	Xylose - Arabinose - Rhamnose					
series	X	AR	RH			
STRAINS NONCHROMOGENIC						
TETRAENE						
GY				nystatin	ETH 13544	<u>Stm. diastaticus</u> subsp. —
GY to V	+	+	-	AB activity	LIA 0178	<u>Stm. diastaticus</u> subsp. —
GY to V	+	+	-	AB activity	LIA 0187	<u>Stm. diastaticus</u> subsp. —
GY	-	-	-	AB activity cyclohex- imide nystatin A ₂	48240 = ATCC 11455	<u>Stm. diastaticus</u> subsp. —
GY	-	-	-	albonoursin actiphenol cycloheximide cycloheximide cycloheximide	ATCC 12757	<u>Stm. diastaticus</u> subsp. —
			8			
				D-73-1 D-73-2		

continued--

TABLE 3. V.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color	Xylose AR	Arabinose RH					
series	X	AR	RH				
GY	-	-	-		cycloheximide nystatin A ₂ nystatin A ₃ polifungin ³ B	ATCC 21581	<u>Stm.</u> <u>diastaticus</u> subsp. —
GY to V	+	+	-		nystatin A ₂	153	<u>Stm.</u> <u>diastaticus</u> subsp. —
GY	-	-	-	Poor	AB activity nystatin A ₁ cycloheximide	48240 = ATCC 11455	<u>Stm.</u> <u>diastaticus</u> subsp. —
GY	-	-	-		cycloheximide nystatin A ₁ nystatin A ₃ polifungin ³ B	ATCC 21581	<u>Stm.</u> <u>diastaticus</u> subsp. —
GY to V	+	+	-		nystatin A ₁	153	<u>Stm.</u> <u>diastaticus</u> subsp. —
GY	-	-	-		cycloheximide nystatin A ₁ nystatin A ₂ polifungin ³ B	ATCC 21581	<u>Stm.</u> <u>diastaticus</u> subsp. —

continued--

TABLE 3. V. --Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷	
Aerial mycelium color series	D-Xylose + AR	D-Arabinose + RH	D-Rhamnose + RH					
W to R to GY	+	-	-	Poor	14	pimaricin	ISP 5357	Stm. <u>diastaticus</u> subsp.
Y to GY	+	-	-	Poor	21	pimaricin	A5283 = ATCC 13326	Stm. <u>diastaticus</u> subsp.
GY	-	-	-	Excellent	35	AB activity	J-23	Stm. <u>diastaticus</u> subsp.
GY	-	-	-			cycloheximide nystatin A ₁ nystatin A ₂ nystatin A ₃	ATCC 21581	Stm. <u>diastaticus</u> subsp.
W to GY	-	-	-	Poor		AB activity	IMET JA 3789	Stm. <u>diastaticus</u> subsp.
GY	+	+	+	Poor	25	tetrin B	I11. 155-2	Stm. <u>diastaticus</u> subsp.
GY	+	+	+	Poor	25	tetrin A	I11. 155-2	Stm. <u>diastaticus</u> subsp.

continued--

TABLE 3. V.--Continued

Utilization of carbon compounds ²				Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
GY	+	+	+	Poor	7	actinoflocin myxoviromycin niger factor tetraene 2 of Katagiri et al. toyocamycin yellow factor	E-212	<u>Stm. diastaticus</u> subsp. _____
GY	+	+	+	Poor	7	actinoflocin myxoviromycin niger factor tetraene 1 of Katagiri et al. toyocamycin yellow factor	E-212	<u>Stm. diastaticus</u> subsp. _____
GY	+	+	-			AB activity AT activity toyocamycin	9-27	<u>Stm. diastaticus</u> subsp. _____

continued---

TABLE 3. V.--Continued

Utilization of carbon compounds ²		Growth on			Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose	L-Arabinose	L-Rhamnose	Czapek's solution- sucrose agar ³				
GY	-	-	+		AB activity AT activity toyocamycin	tetraene 9-48	9-48	<u>Stm. diastaticus</u> subsp. —
GY to GN	+	+	+		pentaene 1070/39 or 1078/39	tetraene 1070/39 or 1078/39	LIA 1070/39 or 1078/39	<u>Stm. diastaticus</u> subsp. —
GY to GN	+	+	+		pentaene 1079/17	tetraene 1079/17	LIA 1079/17	<u>Stm. diastaticus</u> subsp. —
GY to GN	+	+	+		pentaene 1080/1	tetraene 1080/1	LIA 1080/1	<u>Stm. diastaticus</u> subsp. —
W to GY					AB activity	tetraene JA 3792	IMET JA 3792	<u>Stm. diastaticus</u> subsp. —
W to GY					AB activity	tetraene JA 4265	IMET JA 4265	<u>Stm. diastaticus</u> subsp. —

continued---

TABLE 3. V_{∞} --Continued

Aerial mycelium color series	D-Xylose	L-Arabinose	M-Rhamnose	Growth on Czapek's solution-sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Utilization of carbon compounds ²								
						PENTAENE		
GY to GN	+	+	+	tetraene 1070/39 or 1078/39	pentaene 1070/39 or 1078/39		LIA 1070/39 or 1078/39	Stm. <u>diastaticus</u> subsp.
GY to GN	+	+	+	tetraene 1079/17	pentaene 1079/17		LIA 1079/17	Stm. <u>diastaticus</u> subsp.
GY to GN	+	+	+	tetraene 1080/1	pentaene 1080/1		LIA 1080/1	Stm. <u>diastaticus</u> subsp.
						STRAINS CHROMOGENIC		
						TETRAENE		
GY	+	+	-	Fair	33	AB activity	NRRL 2955	Stm. <u>diastaticus</u> subsp.
						tetraene RP 9771		

continued--

TABLE 3. V.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to ⁴ streptomycin		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose X	D-Arabinose AR	D-Rhamnose RH								
PENTAENE											
GY	+	+	-	Excellent	33			Warren		<u>Stm. diastaticus</u>	<u>subsp.</u>
GY	+	+	-	Excellent	34	AB activity filipin II filipin III filipin IV	durhamycin filipin I complex	Ill. 114-8		<u>Stm. diastaticus</u>	<u>subsp.</u>
GY	+	+	-	Excellent	34	AB activity filipin I complex filipin III filipin IV	filipin II	Ill. 114-8		<u>Stm. diastaticus</u>	<u>subsp.</u>
GY	+	+	-	Excellent	34	AB activity filipin I complex filipin II filipin IV	filipin III	Ill. 114-8		<u>Stm. diastaticus</u>	<u>subsp.</u>

continued--

TABLE 3. V_{∞} -- Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose L-Arabinose L-Rhamnose X	+	+	AB activity filipin I complex filipin II filipin III	III. 114-8	Stm. <u>diastaticus</u> subsp. _____
GY to BL	+	+	+	chartreusin	LIA 0579	Stm. <u>diastaticus</u> subsp. _____ <u>Chartreusis</u> subsp. nov.
<p>HEPTAENE</p> <p>STRAINS ONLY PARTIALLY CHARACTERIZED WITH SPINY SPORES</p> <p>(No available information on spore-chain morphology or chromogenicity)</p>						
				nourseo- thricin A nourseo- thricin B	IMET JA 3890a (a variant ex ATCC II455)	Stm. <u>diastaticus</u> subsp. _____

continued--

TABLE 3. VI. Spores hairy in coiled chains.

STREPTOMYCES FLAVEOLUS (WAKSMAN) WAKSMAN AND HENRICI

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose - Arabinose - Ribamnose					
	X	AR	RH			
STRAINS NONCHROMOGENIC						
TETRAENE						
GN	+	+	+	AB activity	PD 04899	<u>Stm. flaveolus</u> subsp. _____
GY	+	+	+	tetraene PA-166	BA 3917 = ATCC 12730	<u>Stm. flaveolus</u> subsp. _____
STRAINS CHROMOGENIC						
TETRAENE						
R to GY	+	+	-	AB activity	1163 FI	<u>Stm. flaveolus</u> subsp. _____

continued--

TABLE 3. VII. Spores smooth to rough in straight chains arranged as the secondary component of compound verticils (whorls) attached to long, straight branches; no coils.

STREPTOVERTICILLIUM RETICULUM (WAKSMAN AND CURTIS) BALDACCI

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose	L-Arabinose	L-Rhamnose								
Y to R to GY	-	-	-	Poor		mycoheptin pentaene 44B/1	tetraene 44B/1	44B/1 or 44V/1		<u>Stv. reticulum</u> subsp.	
Y to R to GY	-	+	-			AB activity hexaene 0677 complex	tetramedin	LIA 0677		<u>Stv. reticulum</u> subsp.	
R	-	-	-	Poor		distamycin A distamycin B mycolutein	distamycin C	NRRL 2886		<u>Stv. reticulum</u> subsp. <u>distallicum</u> subsp. nov.	

continued--

TABLE 3. VII. --Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR D-Arabinose RH D-Rhamnose	X	AR				
R	-	-	-	Poor	cinnamycin factor 1	NRRL B-1285	<u>Stv. reticulum</u> subsp. <u>cinnamomeum</u> subsp. nov.
R to V				Poor	olivomycin A olivomycin B olivomycin C olivomycin D	INA 16749	<u>Stv. reticulum</u> subsp.
Y to R to GY	-	-	-	Poor	AB activity mycoheptin tetraene 44B/1	44B/1 or 44V/1	<u>Stv. reticulum</u> subsp.
R	-	-	-	Poor	AB activity heptaene BK 217γ BK 217α	NRRL 3594	<u>Stv. reticulum</u> subsp.
W to V	-	-	-	Poor	pentaene HA-106	HA-106 = ATCC 25185	<u>Stv. reticulum</u> subsp.

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to		Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	X AR RH	-Arabinose -Rhamnose	Czapek's solution- sucrose agar ³	streptomycin ⁴				
W to R to V	-	-	Poor		AB activity	pentaene HA-145	HA-145 = ATCC 25186	<u>Stv. reticulum</u> subsp.
W to R to V	-	-	Moderate			pentaene HA-176	HA-176 = ATCC 25187	<u>Stv. reticulum</u> subsp.
GY	-	-	Poor	10-32	AB activity	pentaene PA-153	BA 3577A = ATCC 12703	<u>Stv. reticulum</u> subsp.
Y to R to GY	-	+			AB activity tetramedin	hexaene 0677 complex	LIA 0677	<u>Stv. reticulum</u> subsp.
W to Y	-	+	Moderate?		aureofungin B	aureofungin A	HA-496	<u>Stv. reticulum</u> subsp.
W to Y	-	+	Moderate?		aureofungin A	aureofungin B	HA-496	<u>Stv. reticulum</u> subsp.
R	-	-	Poor	15	azacolutin B duramycin (phleomycin complex?)	azacolutin A	F-17 = NRRL B-1699	<u>Stv. reticulum</u> subsp. <u>azacolutum</u>

HEXAENE

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²				Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color	D-Xylose	L-Arabinose	L-Rhamnose					
series	X	AR	RH					
R	-	-	-	Poor	15	duramycin (phleomycin complex?) azacolutin A	F-17 = NRRL B-1699	Stv. reticulum subsp. <u>azacolutum</u>
None	-	-	-	Poor		AB activity candidin candidoin	IMRU 3685b	Stv. reticulum subsp. _____
None	-	-	-	Poor		AB activity candidin candidoin	IMRU 3685b	Stv. reticulum subsp. _____
None	-	-	-	Poor		AB activity candidin candidoin	IMRU 3685b	Stv. reticulum subsp. _____
R	-	-	-	Poor		distamycin A distamycin C mycolutein	NRRL 2886	Stv. reticulum subsp. <u>distallicum</u>

continued---

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	Xylitol - X AR RH	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
W to R	-	-	-	-	-	monicamycin	Gupta	Stv. reticulum	subsp.		
Y to R to GY	-	-	-	Poor	AB activity pentaene 44B/1 tetraene 44B/1	mycoheptin	44B/1 or 44V/1	Stv. reticulum	subsp.		
Y to R to GY	-	-	-	Poor		takamycin	C-11 = ATCC 15959	Stv. reticulum	subsp.		
R	-	-	-	Poor	AB activity trichomycin B trichomycin C	trichomycin A	H-2552	Stv. reticulum	subsp.		
R	-	-	-	Poor	AB activity trichomycin B trichomycin C	trichomycin A	H-2609	Stv. reticulum	subsp.		
R	-	-	-	Poor	AB activity trichomycin B trichomycin C	trichomycin A	H-2635	Stv. reticulum	subsp.		

continued--

TABLE 3. VII. --Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color	series	D-Xylose	D-Arabinose	D-Rhamnose							
		X	AR	RH							
W to R to V		-	-	-		AB activity trichomycin B trichomycin C	trichomycin A	LIA 0052	Stv. <u>reticulum</u>	subsp.	
V		-	-	-		AB activity	trichomycin A	LIA 0680 (natural variant of LIA 0052)	Stv. <u>reticulum</u>	subsp.	
R		-	-	-	Poor	AB activity trichomycin A trichomycin C	trichomycin B	H-2552	Stv. <u>reticulum</u>	subsp.	
R		-	-	-	Poor	AB activity trichomycin A trichomycin C	trichomycin B	H-2609	Stv. <u>reticulum</u>	subsp.	
R		-	-	-	Poor	AB activity trichomycin A trichomycin C	trichomycin B	H-2635	Stv. <u>reticulum</u>	subsp.	

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷	
Aerial mycelium color series	D-Xylose X	L-Arabinose AR	L-Rhamnose RH					
W to R to V	-	-	-		AB activity trichomycin A trichomycin C	trichomycin B	LIA 0052	<u>Stv. reticulum</u> subsp.
V	-	-	-		AB activity	trichomycin B	LIA 0680 (natural variant of LIA 0052)	<u>Stv. reticulum</u> subsp.
R	-	-	-	Poor	AB activity trichomycin A trichomycin B	trichomycin C	H-2552	<u>Stv. reticulum</u> subsp.
R	-	-	-	Poor	AB activity trichomycin A trichomycin B	trichomycin C	H-2609	<u>Stv. reticulum</u> subsp.
R	-	-	-	Poor	AB activity trichomycin A trichomycin B	trichomycin C	H-2635	<u>Stv. reticulum</u> subsp.

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Aerial mycelium color		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵		Strain designation ⁶	Name ⁷
Xylose	Arabinose	Rhamnose	X	AR	RH					
W to R to V	-	-	-	-	-		AB activity trichomycin A trichomycin B	trichomycin C	LIA 0052	<u>Stv. reticulum</u> subsp. _____
V	-	-	-	-	-		AB activity trichomycin A trichomycin B	trichomycin C	LIA 0680	<u>Stv. reticulum</u> subsp. _____
R to V	-	-	-	-	-	9	duramycin phleomycin complex	heptaene 843-1 = (azacolutins?)	NIHJ 843-1 (B)	<u>Stv. reticulum</u> <u>azacolutum</u> subsp. _____
R	-	-	-	-	-	22	AB activity pentaene BK 217 β BK 217 α	heptaene BK 217 γ	NRRL 3594	<u>Stv. reticulum</u> subsp. _____

continued--

TABLE 3. VII. --Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color	-Xylose	-Arabinose	-Rhamnose								
series	X	AR	RH								
STRAINS ONLY PARTIALLY CHARACTERIZED (No available information on spore-wall ornamentation)											
R to V	+	+	+	AB activity	heptaene of Gupta and Chopra			Gupta and Chopra		<u>Stv. reticulum</u>	subsp.
STRAINS CHROMOGENIC TETRAENE											
R	-	-	-	AB activity rubrochlorin heptaene 51-10	tetraene 51-10			51-10		<u>Stv. reticulum</u>	subsp.
R	-	-	-	AB activity	tetraene 380 mixture			INMI 380		<u>Stv. reticulum</u>	subsp.

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose ³ agar		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR	D-Xylose RH	D-Xylose RH				
R	-	-	-	AB activity pentaene 1449/12	tetraene 1449/12	LIA 1449/12	<u>Stv. reticulum</u> subsp. _____
R to GY	-	-	-	AB activity pentaene 1453/68	tetraene 1453/68	LIA 1453/68	<u>Stv. reticulum</u> subsp. _____
R to GY	-	-	-	AB activity pentaene 1477/73	tetraene 1477/73	LIA 1477/73	<u>Stv. reticulum</u> subsp. _____
R to GY	-	-	-	AB activity pentaene 1756/2	tetraene 1756/2	LIA 1756/2	<u>Stv. reticulum</u> subsp. _____
R to GY	-	-	-	AB activity pentaene 1757/53	tetraene 1757/53	LIA 1757/53	<u>Stv. reticulum</u> subsp. _____

continued--

TABLE 3. VII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
R to GY	-	-	-			AB activity pentaene 1759/54	LIA 1759/54	Stv. <u>reticulum</u> subsp. _____
Y to GY	-	-	-			AB activity tetraene 1769/2	LIA 1769/2	Stv. <u>reticulum</u> subsp. _____
Y to GY	-	-	-			AB activity (eurocidin) tetraene 1876/41	LIA 1876/41	Stv. <u>reticulum</u> subsp. _____
Y to GY	-	-	-			AB activity pentaene 2014/8	LIA 2014/8	Stv. <u>reticulum</u> subsp. _____
Y to GY	-	-	-			AB activity pentaene 2370/5	LIA 2370/5	Stv. <u>reticulum</u> subsp. _____
Y	-	-	-	Poor	35	leucomycin mixture (2) 7080 RP	6670	Stv. <u>reticulum</u> subsp. _____ <u>Kitasatoensum</u> subsp. nov.

continued---

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose X	D-Arabinose AR	L-Rhamnose RH								
PENTAENE											
Y	-	-	-	Poor	35	enteromycin carbomycin	eurocidin A	IFO 3724	Stv. reticulum subsp. <u>albireticulum</u> subsp. nov.		
Y	-	-	-	Poor	35	enteromycin carbomycin	eurocidin B	IFO 3724	Stv. reticulum subsp. <u>albireticulum</u>		
R to Y	-	-	-	Poor	Sens.	AB activity tetraene 51-10 heptaene 51-10	rubrochlorin	LIA 51-10 = LIA 0084	Stv. reticulum subsp.		
R to Y	-	-	-			17-41A heptaene 17-41B mixture	pentaene 17-41B mixture	17-41	Stv. reticulum subsp.		

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose AR	D-Arabinose RH	D-Rhamnose RH	X	Y	to GY					
R	-	-	-	Poor	AB activity	pentaene 380 mixture	INMI 380	Stv. <u>reticulum</u> subsp.			
R	-	-	-	Poor	AB activity	pentaene 523-A2 = (eurocidin)	523-A2	Stv. <u>reticulum</u> subsp.			
W to Y to GY	-	-	-	Poor	azomycin tertiomycin A tertiomycin B	pentaene 549-A1 = (eurocidin)	549-A1	Stv. <u>reticulum</u> subsp. <u>eurocidicum</u> subsp. nov.			
R	-	-	-		AB activity tetraene 1449/12	pentaene 1449/12	LIA 1449/12	Stv. <u>reticulum</u> subsp.			
R to GY	-	-	-		AB activity tetraene 1453/68	pentaene 1453/68	LIA 1453/68	Stv. <u>reticulum</u> subsp.			

continued--

TABLE 3. VII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
R to GY	-	-	-		AB activity tetraene 1477/73	pentaene 1477/73	LIA 1477/73	<u>Stv. reticulum</u> subsp.
R to GY	-	-	-		AB activity tetraene 1756/2	pentaene 1756/2	LIA 1756/2	<u>Stv. reticulum</u> subsp.
R to GY	-	-	-		AB activity tetraene 1757/53	pentaene 1757/53	LIA 1757/53	<u>Stv. reticulum</u> subsp.
R to GY	-	-	-		AB activity tetraene 1759/54	pentaene 1759/54	LIA 1759/54	<u>Stv. reticulum</u> subsp.
Y to GY	-	-	-		AB activity tetraene 1769/2	pentaene 1769/2	LIA 1769/2	<u>Stv. reticulum</u> subsp.

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	Xylitol - AR	- Arabinose - RH	- Rhamnose - RH				
Y to GY	-				AB activity tetraene 1876/41	LIA 1876/41	<u>Stv. reticulum</u> subsp. _____
Y to GY	-				AB activity tetraene 2014/8	LIA 2014/8	<u>Stv. reticulum</u> subsp. _____
Y to GY	-				AB activity tetraene 2370/5	LIA 2370/5	<u>Stv. reticulum</u> subsp. _____
R					netropsin aureothin mycoheptin	JA 2814 or IA 2814	<u>Stv. reticulum</u> subsp. _____

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Growth on		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	Xyl - Arabinose - Rhamnose	Glucose solution- sucrose agar ³	Sensitivity to streptomycin ⁴						
W	-	-	Poor			pentaene HA-135	HA-135 = ATCC 25188	Stv. <u>reticulum</u> subsp.	
R to V	-	-	Poor	Sens.	prodigiosin feravenulin	pentaene JA 4495 = (fungichromin)	IMET JA 4495	Stv. <u>reticulum</u> subsp. <u>fervens</u> subsp. nov.	
W to Y to R	-	-	Poor	35	AB activity abikoviromycin heptaene Z-1-6	pentaene Z-1-6	NIHJ Z-1-6	Stv. <u>reticulum</u> subsp.	
Y			Poor		AB activity	HEXAENE cryptocidin		963	Stv. <u>reticulum</u> subsp.
Y to R to GY	-	-	Poor	35	paromomycin	HEPTAENE antifongine		T 4915	Stv. <u>reticulum</u> subsp. <u>paucisporogenum</u> subsp. nov.

continued--

TABLE 3. VII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	U-Xylose	U-Arabinose	U-Rhamnose					
Y to GY	-	-	-	Poor	35	AB activity candidin candidoin	IMRU 3685	<u>Stv. reticulum subsp.</u>
Y to GY				Poor	35	AB activity candidin candidoin	IMRU 3685	<u>Stv. reticulum subsp.</u>
Y to GY	-	-	-	Poor	35	AB activity candidin candidoin	IMRU 3685	<u>Stv. reticulum subsp.</u>
Y	-	-	-	Poor	35	AB activity candidimycin A	138 = ATCC 23903	<u>Stv. reticulum subsp.</u>
Y	-	-	-	Poor	35	AB activity candidimycin	138 = ATCC 23903	<u>Stv. reticulum subsp.</u>
W to R to V	-	-	-	Poor		AB activity cryptomycin complex (6-7 components)	LIA 0179	<u>Stv. reticulum subsp.</u>

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²				Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color	D-Xylose	D-Arabinose	D-Rhamnose					
series	X	AR	RH					
None to GY	-	+	+			pentaene of Kalasz et al.	mycoheptin	Kalasz
						AB activity trichomycin B trichomycin C	trichomycin A	LIA 0755 (natural variant of LIA 0052)
None to GY	-	+	+			AB activity trichomycin A trichomycin C	trichomycin B	LIA 0755 (natural variant of LIA 0052)
						AB activity trichomycin A trichomycin B	trichomycin C	LIA 0755 (natural variant of LIA 0052)
None To GY	-	+	+			AB activity	trichomycins	H-3030
						AB activity		

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color	Xylitol ¹	Arabinose ¹	Rhamnose ¹				
series	X	AR	RH				
R to Y	-	-	-		17-41A pentaene 17-41B	17-41	Stv. <u>reticulum</u> subsp. _____
W to Y to R	-	-	Poor		viomycin	100	Stv. <u>reticulum</u> subsp. _____ <u>olivoreticulum</u> subsp. nov.
R	-	-			netropsin aureothin pentaene 2814H	JA 2814 or IA 2814	Stv. <u>reticulum</u> subsp. _____
Y to R	-	-			AB activity	IMET JA 3625	Stv. <u>reticulum</u> subsp. _____
Y to GY	-	-	Poor	26	AB activity AF factor	BA 3572 = ATCC 12568	Stv. <u>reticulum</u> subsp. _____
W to Y to R	-	-	Poor	35	AB activity abikoviromycin pentaene Z-1-6	NIHJ Z-1-6	Stv. <u>reticulum</u> subsp. _____

continued--

TABLE 3. VII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR X	D-Arabinose RH	D-Rhamnose RH				
R to V to GY	-	-	-		heptaene of Gupta (may be a pentaene)	RRL 61B/6 = ATCC 17963	<u>Stv. reticulum</u> subsp. _____
W	+	-	-	Poor	abikoviro- mycin virocidin	63	<u>Stv. reticulum</u> subsp. _____
					POLYENE		
R	-	-	-	Poor	hydroxy- streptomycin	H-365	<u>Stv. reticulum</u> subsp. <u>griseocarneum</u> subsp. nov.
R	-	-	-	Poor	rotaventin (may be tetraene or pentaene)	NRRL B-1068	<u>Stv. reticulum</u> subsp. <u>griseocarneum</u>
Y to R	-	-	-	Excellent	polyene of Sawazaki et al.	IPCR 449	<u>Stv. reticulum</u> subsp. <u>mashuensis</u> subsp. nov.

continued--

TABLE 3. VII. --Continued

Aerial mycelium color series	D-Xylose	L-Arabinose	L-Rhamnose	Growth on Czapek's solution-sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
W to R to V	-	+	+				pentaene 1 of Gupta	<u>Stv. reticulum</u> subsp.
							pentaene 2 of Gupta	<u>Stv. reticulum</u> subsp.
							HEPTAENE { monicamycin	
							Gupta	<u>Stv. reticulum</u> subsp.
							pentaene 56	<u>Stv. reticulum</u> subsp.
							mycoheptaene	<u>Stv. reticulum</u> subsp.

TABLE 3. VIII. Spores smooth to rough in coiled chains arranged as the secondary component verticils (whorls) attached to long, straight branches.

STREPTOVERTICILLIUM NETROPSIS (FINLAY ET AL.) BALDACCI ET AL.

Utilization of carbon compounds ²		Growth on		Sensitivity to ⁴ streptomycin		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose AR	D-Arabinose RH	D-Rhamnose RH	Czapek's solution- sucrose agar ³							
R to GY	-	-	-	Poor	AB activity mediocidin pentaene 535-A1	tetraene 535-A1		535-A1	Stv. <u>netropsis</u> subsp.		
R	-	-	-		AB activity pentaene 1130/92 heptaene 1130/92	tetraene 1130/92		LIA 1130/92	Stv. <u>netropsis</u> subsp.		
R	-	-	-		AB activity pentaene 1399/11 heptaene 1399/11	tetraene 1399/11		LIA 1399/11	Stv. <u>netropsis</u> subsp.		

STRAINS CHROMOGENIC

TETRAENE

TABLE 3. VIII. --Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	Xylose	Arabinose	Rhamnose					
R	-	-	-	-	-	AB activity pentaene 1413/6 heptaene 1413/6	LIA 1413/6	Stv. <u>netropsis</u> subsp. _____
R	-	-	-	-	-	AB activity pentaene 1415/10 heptaene 1415/10	LIA 1415/10	Stv. <u>netropsis</u> subsp. _____
R	-	-	-	-	-	AB activity pentaene 1425/20 heptaene 1425/20	LIA 1425/20	Stv. <u>netropsis</u> subsp. _____

continued--

TABLE 3. VIII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose	l-Arabinose	l-Rhamnose	X	AR	RH					
R	-						AB activity pentaene 1490/13 heptaene 1490/13	tetraene 1490/13	LIA 1490/13	<u>Stv. netropsis</u>	subsp. _____
R	-						AB activity pentaene 1491/7 heptaene 1491/7	tetraene 1491/7	LIA 1491/7	<u>Stv. netropsis</u>	subsp. _____
							AB activity pentaene 1583/13 heptaene 1583/13	tetraene 1583/13	LIA 1583/13	<u>Stv. netropsis</u>	subsp. _____

continued--

TABLE 3. VIII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	Xylose	Arabinose					
R	-	-	-	-	AB activity pentaene 1583/52 heptaene 1583/52	tetraene 1583/52	LIA 1583/52 <u>Stv. netropsis</u> subsp. _____
R	-	-	-	-	AB activity pentaene 1772/6 heptaene 1772/6	tetraene 1772/6	LIA 1772/6 <u>Stv. netropsis</u> subsp. _____
R	-	-	-	-	AB activity pentaene 1874/18 heptaene 1874/18	tetraene 1874/18	LIA 1874/18 <u>Stv. netropsis</u> subsp. _____

continued--

TABLE 3. VIII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	-Xylose	-Arabinose	-Rhamnose					
	X	AR	RH					
R	-	-	-			AB activity pentaene 1947/1 heptaene 1947/1	tetraene 1947/1	LIA 1947/1 <u>Stv. netropsis</u> subsp. _____
R	-	-	-			AB activity pentaene 1950/14 heptaene 1950/14	tetraene 1950/14	LIA 1950/14 <u>Stv. netropsis</u> subsp. _____
R	-	-	-			AB activity pentaene 1952/8 heptaene 1952/8	tetraene 1952/8	LIA 1952/8 <u>Stv. netropsis</u> subsp. _____

continued--

TABLE 3. VIII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					
R	-	-	-	-	-	AB activity pentaene 1954/1 heptaene 1954/1	tetraene 1954/1	LIA 1954/1 <u>Stv. netropsis</u> subsp. _____
R	-	-	-	-	-	AB activity pentaene 1959/6 heptaene 1959/6	tetraene 1959/6	LIA 1959/6 <u>Stv. netropsis</u> subsp. _____
R	-	-	-	-	-	AB activity pentaene 1960/1 heptaene 1960/1	tetraene 1960/1	LIA 1960/1 <u>Stv. netropsis</u> subsp. _____

continued--

TABLE 3. VIII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR RH					
R	-			AB activity pentaene 2005/1 heptaene 2005/1	LIA 2005/1	<u>Stv. netropsis</u> subsp.
R	-			AB activity pentaene 2094/3 heptaene 2094/3	LIA 2094/3	<u>Stv. netropsis</u> subsp.
				AB activity pentaene 2472/6 heptaene 2472/6	LIA 2472/6	<u>Stv. netropsis</u> subsp.
				AB activity pentaene 8085/54	INA 8085/54	<u>Stv. netropsis</u> subsp.

continued---

TABLE 3. VIII. --Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR	D-Arabinose RH	D-Rhamnose RH				
	X	AR	RH				
	-	-	-		AB activity pentaene 8211/54	INA 8211/54	Stv. <u>netropsis</u> subsp. _____
R	-	-	-	Poor	netropsin pentaene of Konev	NRRL 2268	Stv. <u>netropsis</u> subsp. <u>netropsis</u>
					PENTAENE		
R to GY	-	-	-	Poor	AB activity mediocidin tetraene 535-A1	535-A1	Stv. <u>netropsis</u> subsp. _____
R	-	-	-		AB activity tetraene 1130/92 heptaene 1130/92	LIA 1130/92	Stv. <u>netropsis</u> subsp. _____

continued --

TABLE 3. VIII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose X	D-Arabinose AR	L-Rhamnose RH								
R	-					AB activity tetraene 1399/1 heptaene 1399/11	pentaene 1399/11	LIA 1399/11	<u>Stv. netropsis</u>	subsp.	
R	-					AB activity tetraene 1413/6 heptaene 1413/6	pentaene 1413/6	LIA 1413/6	<u>Stv. netropsis</u>	subsp.	
R	-					AB activity tetraene 1415/10 heptaene 1415/10	pentaene 1415/10	LIA 1415/10	<u>Stv. netropsis</u>	subsp.	

continued--

TABLE 3. VIII. --Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	-Xylose	-Arabinose	-Rhamnose					
	X	AR	RH					
R	-	-	-	AB activity tetraene 1425/20 heptaene 1425/20		pentaene 1425/20	LIA 1425/20	<u>Stv. netropsis</u> subsp. _____
R	-	-	-	AB activity		pentaene 1477/134	LIA 1477/134	<u>Stv. netropsis</u> subsp. _____
R	-	-	-	AB activity tetraene 1490/13 heptaene 1490/13		pentaene 1490/13	LIA 1490/13	<u>Stv. netropsis</u> subsp. _____

continued--

TABLE 3. VIII. --Continued

Utilization of carbon compounds ²		Aerial mycelium color series	D-Xylose	L-Arabinose	L-Rhamnose	Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷	
X	AR										RH
R	-							AB activity tetraene 1491/7 heptaene 1491/7	pentaene 1491/7	LIA 1491/7	<u>Stv. netropsis</u> subsp.
								AB activity tetraene 1583/13 heptaene 1583/13	pentaene 1583/13	LIA 1583/13	<u>Stv. netropsis</u> subsp.
R	-							AB activity tetraene 1583/52 heptaene 1583/52	pentaene 1583/52	LIA 1583/52	<u>Stv. netropsis</u> subsp.
R	-							AB activity tetraene 1638/17 or 1138/17	pentaene 1638/17 or 1138/17	LIA 1638/17 or 1138/17	<u>Stv. netropsis</u> subsp.

continued--

TABLE 3. VIII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					
R	-	-	-			AB activity	pentaene 1646/15	LIA 1646/15 <u>Stv. netropsis subsp.</u>
R	-	-	-			AB activity	pentaene 1658/2	LIA 1658/2 <u>Stv. netropsis subsp.</u>
R	-	-	-			AB activity	pentaene 1760/8	LIA 1760/8 <u>Stv. netropsis subsp.</u>
R	-	-	-			AB activity	pentaene 1771/8	LIA 1771/8 <u>Stv. netropsis subsp.</u>
R	-	-	-			AB activity	pentaene 1772/8	LIA 1772/6 <u>Stv. netropsis subsp.</u>
R	-	-	-			AB activity	pentaene 1773/8	LIA 1773/7 <u>Stv. netropsis subsp.</u>

continued--

TABLE 3. VIII.--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose = X L-Arabinose = AR L-Rhamnose = RH					
R	-			AB activity tetraene 1874/18 heptaene 1874/18	LIA 1874/18	<u>Stv. netropsis</u> subsp. _____
R	-			AB activity pentaene 1894/1	LIA 1894/1	<u>Stv. netropsis</u> subsp. _____
R	-			AB activity tetraene 1947/1 heptaene 1947/1	LIA 1947/1	<u>Stv. netropsis</u> subsp. _____
R	-			AB activity tetraene 1950/14 heptaene 1950/14	LIA 1950/14	<u>Stv. netropsis</u> subsp. _____

continued---

TABLE 3. VIII.--Continued

Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
D-Xylose	D-Arabinose	D-Rhamnose					
Aerial mycelium color series	X	AR	RH				
R	-	-	-	AB activity tetraene 1954/1 heptaene 1954/1	pentaene 1954/1	LIA 1954/1	<u>Stv. netropsis</u> subsp.
R	-	-	-	AB activity tetraene 1959/6 heptaene 1959/6	pentaene 1959/6	LIA 1959/6	<u>Stv. netropsis</u> subsp.
				AB activity tetraene 1960/1 heptaene 1960/1	pentaene 1960/1	LIA 1960/1	<u>Stv. netropsis</u> subsp.

continued--

TABLE 3. VIII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	α-Xylose	α-Arabinose	α-Rhamnose					
R	X	AR	RH			AB activity	pentaene 1967/14	LIA 1967/14 <u>Stv. netropsis</u> subsp. _____
R	-	-	-			AB activity	pentaene 1990/19	LIA 1990/19 <u>Stv. netropsis</u> subsp. _____
R	-	-	-			AB activity	pentaene 1993/16	LIA 1993/16 <u>Stv. netropsis</u> subsp. _____
R	-	-	-			AB activity tetraene 2005/1 heptaene 2005/1	pentaene 2005/1	LIA 2005/1 <u>Stv. netropsis</u> subsp. _____
R	-	-	-			AB activity tetraene 2094/3 heptaene 2094/3	pentaene 2094/3	LIA 2094/3 <u>Stv. netropsis</u> subsp. _____

continued--

TABLE 3. VIII.--Continued

Utilization of carbon compounds ²		Aerial mycelium color series	D-Xylose X	L-Arabinose AR	L-Rhamnose RH	Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
R	-							AB activity	pentaene 2333/14	LIA 2333/14 <u>Stv. netropsis</u> subsp. _____
R	-							AB activity tetraene 2472/6 heptaene 2472/6	pentaene 2472/6	LIA 2472/6 <u>Stv. netropsis</u> subsp. _____
R	-							AB activity	pentaene 2667/2	LIA 2667/2 <u>Stv. netropsis</u> subsp. _____
R	-							AB activity	pentaene 2811/31	LIA 2811/31 <u>Stv. netropsis</u> subsp. _____
R	-			-	-			netropsin mycoheptin aureothricin	pentaene 2814P = (eurocidin)	IMET IA2814 <u>Stv. netropsis</u> subsp. <u>netropsis</u>
R	-							AB activity	pentaene 2824/38	LIA 2824/38 <u>Stv. netropsis</u> subsp. _____

continued--

TABLE 3. VIII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
R	-	-	-	-	-	AB activity	pentaene 2862/10	LIA 2862/10 <u>Stv. netropsis subsp.</u>
R	-	-	-	-	-	AB activity	pentaene 2864/1	LIA 2864/1 <u>Stv. netropsis subsp.</u>
R	-	-	-	-	-	AB activity tetraene 8085/54	pentaene 8085/54	INA 8085/54 <u>Stv. netropsis subsp.</u>
R	-	-	-	-	-	AB activity tetraene 8211/54	pentaene 8211/54	INA 8211/54 <u>Stv. netropsis subsp.</u>
W to Y to R	-	-	-	-	-	netropsin	pentaene JA 3317	IMET JA 3317 <u>Stv. netropsis subsp.</u> <u>netropsis</u>
W to Y to R	-	-	-	-	-	netropsin	pentaene JA 4039	IMET JA 4039 <u>Stv. netropsis subsp.</u> <u>netropsis</u>

continued--

TABLE 3. VIII.--Continued

Utilization of carbon compounds ²		Aerial mycelium color series	D-Xylose AR	L-Arabinose RH	Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷	
W to Y to R							AB activity heptaene JA 4513	pentaene JA 4513	IMET JA 4513	Stv. <u>netropsis</u> subsp.
W to Y to R							AB activity heptaene JA 4531	pentaene JA 4531	IMET JA 4531	Stv. <u>netropsis</u> subsp.
R							netropsin	pentaene of Arai and Mikami	Arai and Mikami	Stv. <u>netropsis</u> subsp. <u>netropsis</u>
R							netropsin	pentaene of Konev	NRRL 2268	Stv. <u>netropsis</u> subsp. <u>netropsis</u>
							HEXAENE			
R to GY	-	-	-	-	Poor		AB activity tetraene 535-A1	mediocidin	535-A1	Stv. <u>netropsis</u> subsp.

continued--

TABLE 3. VIII. --Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color	Xylitol C ₁₂	Arabinose C ₁₂	Rhamnose C ₁₂				
series	X	AR	RH				
<hr/>							
					AB activity	hexaene 676-A2 = (mediocidin)	676-A2 <u>Stv. netropsis</u> subsp. _____
					AB activity	hexaene 676-C1 = (mediocidin)	676-C1 <u>Stv. netropsis</u> subsp. _____
					<div style="text-align: center;"> { HEPTAENE } </div>		
R	-	-	-		netropsin aureothricin eurocidin	mycoheptin	IMET IA 2814 <u>Stv. netropsis</u> subsp. <u>netropsis</u>
R	-	-	-		AB activity	heptaene 1130/92	LIA 1130/92 <u>Stv. netropsis</u> subsp. _____
R	-	-	-		AB activity tetraene 1399/11 pentaene 1399/11	heptaene 1399/11	LIA 1399/11 <u>Stv. netropsis</u> subsp. _____

continued--

TABLE 3. VIII.--Continued

Utilization of carbon compounds ²		Aerial mycelium color series	D-Xylose " AR	L-Arabinose " RH	Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
R	-						AB activity tetraene 1413/6 pentaene 1413/6	LIA 1413/6	Stv. <u>netropsis</u> subsp.
R	-						AB activity tetraene 1415/10 pentaene 1415/10	LIA 1415/10	Stv. <u>netropsis</u> subsp.
R	-						AB activity tetraene 1425/20 pentaene 1425/20	LIA 1425/20	Stv. <u>netropsis</u> subsp.

continued--

TABLE 3. VIII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
R	-					AB activity tetraene 1490/13 pentaene 1490/13	LIA 1490/13	Stv. <u>netropsis</u> subsp. _____
R	-					AB activity tetraene 1491/7 pentaene 1491/7	LIA 1491/7	Stv. <u>netropsis</u> subsp. _____
R	-					AB activity tetraene 1583/13 pentaene 1583/13	LIA 1583/13	Stv. <u>netropsis</u> subsp. _____

continued--

TABLE 3. VIII. ---Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose -X -AR -RH	L-Arabinose -I -AR -RH	Czapek's solution- sucrose agar ³				
R	-	-	AB activity tetraene 1583/52 pentaene 1583/52		heptaene 1583/52	LIA 1583/52	<u>Stv. netropsis</u> subsp.
R	-	-	AB activity tetraene 1772/6 pentaene 1772/6		heptaene 1772/6	LIA 1772/6	<u>Stv. netropsis</u> subsp.
R	-	-	AB activity tetraene 1874/18 pentaene 1874/18		heptaene 1874/18	LIA 1874/18	<u>Stv. netropsis</u> subsp.

continued--

TABLE 3. VIII. --Continued

Aerial mycelium color series	Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose				
	X	AR	RH				
R	-	-	-	AB activity tetraene 1947/1 pentaene 1947/1	heptaene 1947/1	LIA 1947/1	Stv. <u>netropsis</u> subsp. _____
R	-	-	-	AB activity tetraene 1950/14 pentaene 1950/14	heptaene 1950/14	LIA 1950/14	Stv. <u>netropsis</u> subsp. _____
R	-	-	-	AB activity tetraene 1954/1 pentaene 1954/1	heptaene 1954/1	LIA 1954/1	Stv. <u>netropsis</u> subsp. _____

continued--

TABLE 3. VIII.--Continued

Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷	
Aerial mycelium color series	D-Xylose C ¹¹	L-Arabinose C ¹¹	L-Rhamnose C ¹¹	X					
R	-					AB activity tetraene 1959/6 pentaene 1959/6	heptaene 1959/6	LIA 1959/6	Stv. <u>netropsis</u> subsp. _____
R	-					AB activity tetraene 1960/1 pentaene 1960/1	heptaene 1960/1	LIA 1960/1	Stv. <u>netropsis</u> subsp. _____
R	-					AB activity tetraene 2005/1 pentaene 2005/1	heptaene 2005/1	LIA 2005/1	Stv. <u>netropsis</u> subsp. _____

continued--

TABLE 3. VIII.--Continued

Aerial mycelium color series	Utilization of carbon compounds ²	D-Xylose	L-Arabinose	L-Rhamnose	Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
		X	AR	RH					
R	-						AB activity tetraene 2094/3 pentaene 2094/3	LIA 2094/3	<u>Stv. netropsis</u> subsp. _____
R	-						AB activity tetraene 2472/6 pentaene 2472/6	LIA 2472/6	<u>Stv. netropsis</u> subsp. _____
W to Y to R							AB activity pentaene JA 4513	IMET JA 4513	<u>Stv. netropsis</u> subsp. _____
W to Y to R							AB activity pentaene JA 4531	IMET JA 4531	<u>Stv. netropsis</u> subsp. _____
							heptaene of Blinov	Blinov	<u>Stv. netropsis</u> subsp. _____

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution-sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					
	X	AR	RH					
IDENTITY UNKNOWN								
STRAINS ONLY PARTIALLY CHARACTERIZED WITH SMOOTH-WALLED SPORES								
(No information available on spore-chain morphology or chromogenicity)								
TETRAENE								
	nourseo-thricin A			nourseo-thricin B		nystatin	IMET JA 3890b ex ATCC II455	Stm. _____ subsp. _____
STRAINS ONLY PARTIALLY CHARACTERIZED WITH STRAIGHT TO FLEXUOUS CHAINS OF SPORES								
(No information available on spore-wall ornamentation)								
NONCHROMOGENIC								
HEPTAENE								
	Two other components of eurotin complex or mixture			eurotin A		H-5592		Probably Stm. <u>griseus</u> subsp. _____

Y

TABLE 3-Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution-sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					
Y	+	+	-		Two other components of eurotin complex or mixture	eurotin A	H-5598	Probably <u>Stm. griseus</u> subsp. _____
Y	+	+	-		AB activity antimycin A	heptaene 2/49	UEMP 2/49 = RIA 456	Probably <u>Stm. griseus</u> subsp. _____
Y	+	+	-		AB activity antimycin A	heptaene 3/49	UEMP 3/49 = RIA 457	Probably <u>Stm. griseus</u> subsp. _____
Y	+	+	-		AB activity antimycin A	heptaene 64	RIA 64	Probably <u>Stm. griseus</u> subsp. _____
Y	+	+	-		AB activity antimycin A	heptaene 912	IPV-912 = RIA 417	Probably <u>Stm. griseus</u> subsp. _____
Y	+	+	-		AB activity antimycin A	heptaene 1437-19	1437-19 = RIA 322	Probably <u>Stm. griseus</u> subsp. _____

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR	L-Arabinose RH	L-Rhamnose sucrose agar ³				
CHROMOGENICITY UNKNOWN							
TRIENE							

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to		Other		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose L-Arabinose L-Rhamnose	Czapek's solution- sucrose agar ³	streptomycin ⁴	antibiotic(s) produced ⁵							
STRAINS ONLY PARTIALLY CHARACTERIZED WITH COILED CHAINS OF SPORES (No information available on spore-wall ornamentation)											
STRAINS NONCHROMOGENIC											
TETRAENE											
W to Y to GY				flavacid strepto- thricin type 3 D-substance	tetraene 0-2	0-2			Stm.		subsp.
W to Y		Poor			tetraene PA-86	4622-21			Stm.		subsp.
PENTAENE											
GY		Poor			capacidin	NYSDH 5913			Stm.		subsp.
R, Y, or GY				(actinomycin C)	(eurocidin)	991-A2			Stm.	(strain lost)	subsp.

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution-sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	U-Xylose	U-Arabinose	U-Rhamnose					
	X	AR	RH					
GY						pentafungin	L23	Stm. _____ subsp. _____
						HEXAENE		
GY to GN	-	-	-	Excellent?		dermostatin B	dermostatin A	Stm. _____ subsp. _____
							Thirumala-char and Menon	
GY to GN	-	-	-	Excellent?		dermostatin A	dermostatin B	Stm. _____ subsp. _____
							Thirumala-char and Menon	
W to Y to GY						strepto-thricin type 3	flavacid	Stm. _____ subsp. _____
						tetraene O-2	O-2	
						D-substance		
W	+	-	-	Moderate		hexin	AFS2	Stm. _____ subsp. _____

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to ⁴ streptomycin	Other antibiotic(s) ⁵ produced	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose + AR	D-Arabinose + RH	Czapek's solution- sucrose agar ³				
Y to GY					AB activity	hexaene JA 4029	IMET JA 4029
					HEPTAENE		
Y to GY	+	+	Poor		thiolutin aureothricin iso-butyro- pyrrothine factor A one other AB hamycin (minor com- ponent) hamycin X pimprinine?	hamycin (major component)	HACC 2510
							Stm. subsp. (strain not available)
Y to GY	+	+	Poor		thiolutin aureothricin iso-butyro- pyrrothine factor A	hamycin (minor component)	HACC 2510
							Stm. subsp. (strain not available)

TABLE 3--Continued

Utilization of carbon compounds ²				Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
Y to GY (continued)								
Y to GY	+	+	+	Poor		one other AB hamycin (major com- ponent) hamycin X pimprinine?	HACC 2510	Stm. <u> </u> subsp. <u> </u> (strain not available)
						thiolutin aureothricin iso-butyro- pyrrothine factor A one other AB hamycin (major com- ponent) hamycin (minor com- ponent) pimprinine?	hamycin X	
B to GN						heptaene of Arai and Mikami	Arai and Mikami	Stm. <u> </u> subsp. <u> </u>

continued--

TABLE 3--Continued

Utilization of carbon compounds ²				Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color	≡-Xylose	≡-Arabinose	≡-Rhamnose					
series	X	AR	RH					
<div>POLYENE (TRIENE?)</div>								
GY	+	+	+	Poor		robigocidin B robigocidin C	robigocidin A 6712	Stm. subsp. _____
GY	+	+	+	Good		robigocidin B robigocidin C	robigocidin A 6900	Stm. subsp. _____
<div>STRAINS CHROMOGENIC TETRAENE</div>								
GY	-	-	+	Poor		akitamycin	IID H-5504 JDA	Stm. subsp. _____

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose X	L-Arabinose AR	L-Rhamnose RH								
GY	+	-	+	Poor		toyamycin		T-6	Stm.	subsp.	
GY	+	+	+			unamycin B		U-10A	Stm.	subsp.	
						PENTAENE					
GY		-	-			AB activity	pentaene 9/1 or 9/2	9/1	Stm.	subsp.	
GY	-	-	-			AB activity	pentaene 881/8 or 881/9	881/8 or 881/9	Stm.	subsp.	
GY to V						AB activity	pentaene JA 2250	IMET JA 2250	Stm.	subsp.	
						HEPTAENE					
W to GY						actinoleukin	heptaene of Ueda and Umezawa	927-S1	Stm.	subsp.	

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
GY	-	-	-	-	-		5391 = ATCC 14972	subsp. _____
GY							E 862	subsp. _____
GY							E 887	subsp. _____
GY							A-94	subsp. _____

POLYENE

tetrahexin

CHROMOGENICITY UNKNOWN

TRIENE

mycotrienin

mycotrienin

TETRAENE

nystatin

cytostatic
factor
antiviral
factor

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose X	D-Arabinose AR	D-Rhamnose RH	Czapek's solution- sucrose agar ³	streptomycin ⁴						
<div> <div>PENTAENE</div> <div>pentaene 1130/53</div> </div>											
<div> <div>HEPTAENE</div> <div>heptaene 15602/54</div> </div>											
<div> <div>STRAINS INADEQUATELY CHARACTERIZED</div> <div>(No information available on spore-wall ornamentation or spore-chain morphology)</div> </div>											
<div> <div>STRAINS NONCHROMOGENIC</div> <div>TETRAENE</div> </div>											
None	-	-	-	AB activity pentaene 917/1	tetraene 917/1	LIA 917/1	Probable streptomycete or streptovorticillium; no generic name can be assigned at this time				

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose	l-Arabinose	l-Rhamnose	X	AR	RH					
PENTAENE											
None	-	-	-	-	-	-	AB activity tetraene 917/1	pentaene 917/1	LIA 917/1	Probable streptomycete or streptoverticillium; no generic name can be assigned at this time	
None to W	-	-	-	-	-	-	pentaene A.228b	pentaene A.228a	Glaxo Ds 41	Probable streptomycete or streptoverticillium; no generic name can be assigned at this time	
None to W	-	-	-	-	-	-	pentaene A.228a	pentaene A.228b	Glaxo Ds 41	Probable streptomycete or streptoverticillium; no generic name can be assigned at this time	

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose X AR RH					
<div>STRAINS CHROMOGENIC</div> <div>PENTAENE</div>						
R				pentaene of Arai and Mikami	Arai and Mikami	Probable streptomycete or streptovercicillium; no generic name can be assigned at this time
W to GY		Very good		AB activity	pentaene 1579	Probable streptomycete or streptovercicillium; no generic name can be assigned at this time
<div>HEXAENE</div> <div>mycelin-IMO</div>						
					207	Probable streptomycete or streptovercicillium; no generic name can be assigned at this time

continued--

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose ³ agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose =	D-Arabinose =	D-Rhamnose =								
HEPTAENE											
None	-	-	-	Poor	16	AB activity	heptaene DJ-400-12	Kieslich		Probable streptomycete or streptoverticillium; no generic name can be assigned at this time	
None	-	-	-	Poor	16	AB activity other compo- nents of DJ-400 heptaene complex	heptaene DJ-400-A (inactive)	Kieslich		Probable streptomycete or streptoverticillium; no generic name can be assigned at this time	
None	-	-	-	Poor	16	AB activity other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-A ₂	Kieslich		Probable streptomycete or streptoverticillium; no generic name can be assigned at this time	

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷		
Aerial mycelium color series	D-Xylose X	L-Arabinose AR	L-Rhamnose RH						
None	-	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-2A	Kieslich	Probable streptomycete or streptoverticillium; no generic name can be assigned at this time
None	-	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-2B	Kieslich	Probable streptomycete or streptoverticillium; no generic name can be assigned at this time
None	-	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-4A	Kieslich	Probable streptomycete or streptoverticillium; no generic name can be assigned at this time

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on		Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷	
Aerial mycelium color series	D-Xylose " " " " X	D-Arabinose " " " " AR	Czapek's solution- sucrose agar ³					
None	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-4B	Kieslich	Probable streptomycete or streptovorticillium; no generic name can be assigned at this time
None	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-4C	Kieslich	Probable streptomycete or streptovorticillium; no generic name can be assigned at this time
None	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-6A	Kieslich	Probable streptomycete or streptovorticillium; no generic name can be assigned at this time

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷			
Aerial mycelium color series	Xylitol - Arabinose - Rhamnose								
	X	AR	RH						
None	-	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-6B	Kieslich	Probable streptomycete or streptovorticillium; no generic name can be assigned at this time
None	-	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-7A	Kieslich	Probable streptomycete or streptovorticillium; no generic name can be assigned at this time
None	-	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-8A	Kieslich	Probable streptomycete or streptovorticillium; no generic name can be assigned at this time

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose ³ agar ³		Sensitivity to streptomycin ⁴		Other antibiotic(s) produced ⁵		Strain designation ⁶		Name ⁷	
Aerial mycelium color series	D-Xylose AR	D-Arabinose RH	D-Rhamnose RH	X	AR	RH	X	AR	RH	X	AR
None	-	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-8B	Kieslich	Probable streptomycete or streptovorticillium; no generic name can be assigned at this time		
None	-	-	-	Poor	16	AB activity Other compo- nents of heptaene DJ-400 complex	heptaene DJ-400-10B	Kieslich	Probable streptomycete or streptovorticillium; no generic name can be assigned at this time		
PROBABLE STREPTOMYCETES OR STREPTOVORTICILLIA FOR WHICH NO INFORMATION IS AVAILABLE ON SPORE-WALL ORNAMENTATION, SPORE-CHAIN MORPHOLOGY, OR CHROMOGENICITY											
TRIENE											
triene MM8										ACC 1293	(strain lost)

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR RH X					
					tetraene 18-80	18-80
					tetraene 660-C or 660-C ₁	660-C or 660-C ₁
					tetraene 667-A3	667-A3
					tetraene 674-A2	674-A2
					tetraene 999-A1	999-A1
					tetraene A.284	A.284
					tetraene A.288	A.288
					tetraene A.387	A.387
					tetraene A.432	A.432
					tetraene A-435	A _{C2} -435

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose ³ agar	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	l-Xylose l-Arabinose l-Rhamnose X AR RH					
					tetraene A.862	A.862
				albomycin moldicidin (sic) onomycin I	tetraene J ₄ -B = (chromin)	J-4
					tetraene 1 of Askarova et al.	Askarova et al.
					tetraene 2 of Askarova et al.	Askarova et al.
					tetraene of Bojanowski et al.	Bojanowski et al.
					tetraene of Thirumalachar	Thirumalachar

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose ³ agar	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR RH X					
				PENTAENE		
				homochainin norchainin	aurenin HACC 3047	2843-10
					filipin NIAS 405-8	
					flavomycoin IMET JA-5068	
					fungichromatin Tytell et al.	
				chainin	homochainin HACC 3047	
				strepto- thricin	kabacidin Ogata et al.	
				AB activity	lienomycin 2995	

GY?

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					
	X	AR	RH					
						thiolutin aureothricin iso-butyro- pyrrothine 2 other antibiotics	neopentaene 2236	
						chainin homochainin	norchainin HACC 3047	
						albomycin moldicidin (sic) tetraene J ₄ -B = (chromin)	onomycin I J-4	
							roseofungin Vetlugina	
						AB activity polyene 27-1	pentaene 27-1 = (flavofungin) 27-1	

W

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose ³ agar	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
				pentaene 51			51	
				pentaene 83			Arai et al.	
				pentaene 90			Arai et al.	
				pentaene 523-G2			523-G2	
				AB activity				
				pentaene 1130/69			LIA 1130/69	
				pentaene 1665/3			LIA 1665/3	
				pentaene A.341			A.341	
				pentaene A.688			A.688	
				pentaene A.695			A.695	

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
							pentaene A.772	A.772
							pentaene A.786	A.786
							pentaene A.789	A.789
Y				AB activity polyene K-1			pentaene K-1 = (flavofungin)	K-1
Y				AB activity polyene Lo-5			pentaene Lo-5 = (flavofungin)	Lo-5
Y				AB activity polyene S9-2			pentaene S9-2 = (mycoticin)	S9-2
				tetraene 2 of Askarova et al.			pentaene of Askarova et al.	Askarova et al.
							pentaene of Kalasz et al.	Kalasz et al.

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					
	X	AR	RH					
					candidin	candihexin E	18A2 (mutant of IMRU 3685)	
					cis-candidin			
					candihexin A			
					candihexin B			
					candihexin D			
					candihexin F			
					candidin	candihexin F	18A2 (mutant of IMRU 3685)	
					cis-candidin			
					candihexin A			
					candihexin B			
					candihexin D			
					candihexin E			
					endomycin A helixin D	endomycin B	B-34	
					endomycin A helixin D	endomycin B	PRL 1678	

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose X					
					hexaene 878	LIA 878
					hexaene 676-C1 = (mediocidin)	676-C1
					<u>HEPTAENE</u>	
					amphotericin B	LIA 510
					amphotericin B	LIA 510/13
					candidin	G-252
					candidin	32
					candidin	18A2 (mutant of IMRU 3685)
				cis-candidin		
				candihexin A		
				candihexin B		
				candihexin D		
				candihexin E		
				candihexin F		

continued--

TABLE 3--Continued

Utilization of carbon compounds ²		Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
Aerial mycelium color series	D-Xylose AR L-Arabinose L-Rhamnose					
	X			candidin candihexin A candihexin B candihexin D candihexin E candihexin F	18A2 (mutant of IMRU 3685)	
					BA-27	
				grubilin	Tsyganov et al.	
				hepcin		
				heptafuligin Complex	Kalasz et al.	
				heptamycin	Henis et al.	
				levorin	396	
				neoheptaene	Thirumalachar et al.	

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
							heptaene 5 (2 components)	Blinov (3 strains)
							heptaene 6/6	6/6
						AB activity	heptaene 62	62
							heptaene 528 = (trichomycin)	528 = NIHJ 603-A1
							heptaene 560-Cl	560-Cl
							heptaene 854/2	854/2
							heptaene 1129/66	LIA 1129/66
							heptaene 1717/46	LIA 1717/46

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
							heptaene LIA 1831/23	
							1831/23 = (trichomycin)	
							heptaene 2368	2368
							heptaene LIA 3016	LIA 3016
							heptaene A.4	A.4
							heptaene A-113	A-113
							heptaene A-262	A-262
							heptaene A.570	A.570
							heptaene A.571	A.571
							heptaene A.583	A.583

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	D-Arabinose	D-Rhamnose					
	X	AR	RH					
							heptaene AE-56 = (ayfactin)	AE-56
							heptaene AF-1231	1231
							heptaene H-1A	H-1A
							heptaene S-515	S-515
							heptaene X-63	X-63
						echinomycin	(strain not available)	
							heptaene of Askarova et al.	Askarova et al.
							heptaene of Blinov	Blinov (9 strains)
							heptaene of Filippova et al.	Filippova et al.

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D ⁺ -Xylose	D ⁺ -Arabinose	D ⁺ -Ribamnose					
	X	AR	RH					
							heptaene of Konev and Bol'shakova	Konev and Bol'shakova
							heptaene of Tsyganov et al.	heptaene of Tsyganov et al.
							viomycin abikovi- mycin	Ueda and Umezawa
							POLYENE	
							chantalmysin	Gupta
							polyene 1 of Askarova and Sadullaev	Askarova and Sadullaev

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	Xylose	Arabinose	Rhamnose					
	X	AR	RH					
							polyene 2 of Askarova and Sadullaev	Askarova and Sadullaev
							moronal	Muftic
W						AB activity (flavofungin)	polyene 27-1	27-1
Y						AB activity unamycin B	polyene A1-4	A1-4
Y						AB activity antimycin	polyene Br-61	Br-61
Y						AB activity (flavofungin)	polyene K-1	K-1
Y						AB activity (flavofungin)	polyene Lo-5	Lo-5

May not be a polyene anti-fungal

continued--

TABLE 3--Continued

Aerial mycelium color series	Utilization of carbon compounds ²			Growth on Czapek's solution- sucrose agar ³	Sensitivity to streptomycin ⁴	Other antibiotic(s) produced ⁵	Strain designation ⁶	Name ⁷
	D-Xylose	L-Arabinose	L-Rhamnose					
	X	AR	RH					
Y						AB activity anisomycin	polyene P [✓] S-3	P [✓] S-3
GY						AB activity unamycin B	polyene R [✓] 2-9	R [✓] 2-9
Y						AB activity unamycin B	polyene R [✓] -11	R [✓] -11
Y						AB activity (mycoticin)	polyene S9-2	S9-2
						Shaal's anti- fungal	Muftic	May not be a polyene anti- fungal

References

1. Abe, K. and T. Hata (1968) Studies on Antibiotics Produced from Kitasatoa kauaiensis sp. nov. J. Antibiot. 21(9) : 545-550.
2. Aiso, K., T. Arai, K. Washida and T. Tanaami (1952) 'Mycelin,' a New Antifungal Substance Extracted from the Mycelium of a Streptomyces. J. Antibiot. (Japan) 5(4) : 217-219.
3. Akai, S., J. Shishiyama and H. Egawa (1956) On the Antifungal Antibiotics Discovered in Japan. I. Kyoto Univ. Forsch. Geb. Pflanzenkr. 6(1) : 37-46.
4. Akai, S., J. Shishiyama, H. Egawa and E. Yoshinaga (1963) On the Antifungal Antibiotics Discovered in Japan. II. Kyoto Univ. Forsch. Geb. Pflanzenkr. 7 : 45-59.
5. Albuquerque, M. M. F. de, O. G. de Lima and J. M. de Araújo (1968) Guanamicina, um Antibiótico do Grupo Quinoxalínico, Produzido Pelo Streptomyces sp. 6617 - IAUFPe. Rev. Inst. Antibiot., Univ. Recife 8-1/2 : 3-17.
6. Albuquerque, M. M. F. de, O. G. de Lima, F. D. deA. Lyra, J. M. de Araújo, J. S. deB. Coêlho, M. da S. B. Cavalcanti and L. C. Moreira (1969) Guamicina, um Antibiótica Tetraênico Isolamento e Caracterização. Rev. Inst. Antibiot., Univ. Recife 9-1/2 : 39-49.
7. American Cyanamid Company (1971) Preparation of Antifungal Agent BH 890. German Patent 2,021,436 (November 11).

8. Anzai, K., K. Isono, K. Okuma and S. Suzuki (1960) The New Antibiotics, Quetiomycons A and B. J. Antibiot. (Japan) 13A(2) : 125-132.
9. Arai, T. and H. Katoh (1958) Preliminary report on "Quinquamycin," a New Pentaene Antifungal Agent. Annu. Rep. Inst. Food Microbiol., Chiba Univ. 11 : 59-61.
10. Arai, T., Y. Koyama, H. Honda and M. Hayashi (1960) Simultaneous Production of Two Antibiotics by S. lavendulae E 20-27. Annu. Rep. Inst. Food Microbiol., Chiba Univ. 13 : 39-44.
11. Arai, T., Y. Koyama, S. Kuroda, T. Morita and S. Torii (1960) Studies on Antibiotics Nos. 9-27 and 9-48. Annu. Rep. Inst. Food Microbiol., Chiba Univ. 13 : 45-50.
12. Arai, T. and S. Kuroda (1962) Fine Structure of Spiny Spores of Streptomyces. J. Bacteriol. 83(4) : 924-925.
13. Arai, T. and Y. Mikami (1969) Identification keys for Antibiotics Producing Streptomyces. I. Antifungal Antibiotics Producers. Annu. Rep. Inst. Food Microbiol., Chiba Univ. 22 : 59-79.
14. Arai, T., Y. Morita and Y. Takamizawa (1954) Studies on the Antifungal Substance Extracted from the Mycelia of Streptomyces. V. On the Certain Characteristics of Antifungal Substances of Mycelial Origin. J. Antibiot. (Japan) 7A(5) : 169-173.
15. Arai, T., T. Nakada and M. Suzuki (1957) Production of Viomycin-Like Substance by a Streptomyces. Antibiot. Chemother. 7(8) : 435-442.
16. Arai, T., I. Shidara and Y. Morita (1953) Studies on the Antifungal Substances Extracted from the Mycelia of Streptomyces (IIIrd report). Rep. Inst. Putrefaction Res., Chiba Univ. 6 : 119-121.

17. Arcamone, F., C. Bertazzoli, G. Canevazzi, A. Di Marco, M. Ghione and A. Grein (1957) La Etruscomicina, Nuovo Antibiotico Antifungino Prodotto Dallo Streptomyces lucensis n. sp. G. Microbiol. 4 : 119-128.
18. Arcamone, F., G. Canevazzi, A. Grein and F. Bizioli (to Società Farmaceutici Italia) (1965) Antibiotic Distamycin and Method of Preparation. U.S. Patent 3,190,801 (June 22).
19. Arcamone, F., A. di Marco, M. Ghione, P. Pennella and A. Grein (to Società Farmaceutici Italia) (1965) Method of Obtaining Antibiotic and Product. U.S. Patent 3,170,837 (February 23).
20. Arishima, M. and J. Sakamoto (to Meiji Confectionary Ltd.) (1960) Cryptocidin, a New Antibiotic Substance. Japanese Patent 13,897 (September 21); Chem. Abstr. 55 : 15826d (1961).
21. Arishima, M. and J.-M. Sakamoto (to Meiji Confectionary Ltd.) (1961) AF-1231, An Antibiotic Substance. Japanese Patent 1,147 (March 7); Chem. Abstr. 55 : 21473a (1961).
22. Arishima, M. and J. Sakamoto (to Meiji Confectionary Ltd.) (1961) Moldocidin (sic)-A, Antibiotic Substance. Japanese Patent 1,148 (March 7); Chem. Abstr. 55 : 21476b (1961).
23. Arishima, M., J. Sakamoto and E. Okamoto (to Meiji Confectionary Ltd.) (1960) Protocidin, an Antibiotic Substance. Japanese Patent 8,648 (July 6); Chem. Abstr. 55 : 7758d (1961).

24. Armstrong, J. J., J. F. Grove, W. B. Turner and G. Ward (1965) An Antifungal Triene from a Streptomyces sp. Nature 206(4982) : 399-400.
25. Askarova, S. A., S. M. Khodzhibaeva and D. R. Khalikov (1972) Effect of Antifungal Antibiotic 18-80 on Nucleic Acids of Verticillium dahliae. Mikrobiologiya 41(3) : 490-493; Engl. Transl. : 428-431.
26. Askarova, S. A., A. I. Gur'yanova and O. F. Polyanichko (1968) Action of Antibiotics on Dissolvable Cotton Carbohydrates. Uzb. Biol. Zh. 12(4) : 49; Chem. Abstr. 70 : 17604t (1970).
27. Askarova, S. A. and F. Sadullaev (1967) Verticillate Actinomycetes Found in the Sierozem Soils and Uzbekistan: Producers of Antibiotics Against Verticillium dahliae. In: Biologiya i Fiziologiya Mikroorganizmov. Fan: Tashkent: 103-109; Biol. Abstr. 48 : 8155. Abstract 90903 (1968).
28. Askarova, S. A., V. A. Tsyganov, Yu. E. Konev and R. Minbaev (1967) Actinomycetes from the Desert Soils of the Kyzyl Kum Desert, Producing Antibiotics Against Verticillium dahliae. In: Biologiya i Fiziologiya Mikroorganizmov. Fan: Tashkent: 146-153; Biol. Abstr. 49 : 8155. Abstract 90904 (1968).
29. Aszalos, A., R. S. Robison, P. Lemanski and B. Berk (1968) Trienine, an Antitumor Triene Antibiotic. J. Antibiot. 21(10) : 611-615.
30. Aszalos, A., R. S. Robison, F. Pansy and B. Berk (to E. R. Squibb & Sons, Inc.) (1972) Trienine and a Process for Making the Same. U.S. Patent 3,632,749 (January 4).

31. Backus, E. J. and M. Dann (to American Cyanamid Company) (1960)
Nouvelles Substance Fongicide Produite Par un Microorganisme de
L'espece Streptomyces A.5283 et Procédé pour sa Préparation.
French Patent 1,231,650 (September 30).
32. Ball, S., C. J. Bessell and A. Mortimer (1957) The Production of
Polyenic Antibiotics by Soil Streptomycetes. J. Gen. Microbiol.
17 : 96-103.
33. Ball, S., C. J. Bessell, A. M. Mortimer, D. E. Gill-Carey and
A. D. Walker (to Glaxo Laboratories Ltd.) (1956) Herstellung und
Gewinnung eines Antibioticums. German Patentschrift 942,047
(April 26); Chem. Abstr. 52 : 14982h (1958).
34. Batra, S. K. and B. S. Bajaj (1956) Streptomyces anandii--A New
Species of Streptomyces Isolated from Soil. Indian J. Exp.
Biol. 3 : 240-242.
35. Batra, S. K. and B. S. Bajaj (1966a) Effect of an Antifungal
Antibiotic, Pentaene G8, on Chili Seed Microflora and Stem Rust
of Wheat. Plant Dis. Rep. 59(5) : 299-300.
36. Batra, S. K. and B. S. Bajaj (1966b) Pentaene G₈. A New Antifungal
Antibiotic from Streptomyces anandii. Indian J. Exp. Biol. 4 :
50-51.
37. Bérdy, J. (1974) Recent Developments of Antibiotic Research and
Classification of Antibiotics According to Chemical Structure.
Advan. Appl. Microbiol. 18 : 309-406.

38. Bérdy, J. and I. Horváth (1965) Antibiotic Produced by Streptomyces.
VI. Pentafungin, a New Antifungal Antibiotic. Z. Allg. Mikrobiol.
5(5) : 345-350.
39. Bergy, M. E. and T. E. Eble (1968) The Filipin Complex. Biochemistry
7(2) : 653-659.
40. Bergy, M. E. and H. Hoeksema (1972) Scopafungin, a Crystalline
Endomycin Component. J. Antibiot. 24(1) : 39-43.
41. Bessell, C. J., W. K. Anslow, A. M. Mortimer, D. L. Fletcher and
A. Rhodes (to Glaxo Laboratories Limited) (1961) Antibiotic
Production. U.S. Patent 3,013,947 (December 19).
42. Bhate, D. S. and S. P. Acharya (1963) Studies on Hamycin. Isolation
of a New Heptaene, Hamycin X. Hindustan Antibiot. Bull. 6(1) :
1-5.
43. Bhate, D. S., and S. P. Acharya (1964) Aureofungin, a New Antifungal
Antibiotic. II. Isolation and Physicochemical Properties.
Hindustan Antibiot. Bull. 6(4) : 170-172.
44. Bhate, D. S., R. K. Hulyalkar and S. K. Menon (1960) Isolation of
Iso-Butyrrothine Along with Thiolutin and Aureothricin from a
Streptomyces sp. Experientia 16(11) : 504-505.
45. Bhate, D. S., W. V. Lavate and S. P. Acharya (1964) Isolation,
Crystallisation and Physico-Chemical Properties of Neopentaene,
a New Antifungal Antibiotic. Hindustan Antibiot. Bull 6(4) :
153-156.



46. Blinov, N. O. (1958) On the Systematic Position of Producers of Antifungal Antibiotics of the Candicidin Type. *Antibiotiki* 3(5) : 13-17.
47. Bognár, R., B. O. Brown, W. J. S. Lockley, S. Makleit, T. P. Toube, B. C. L. Weedon and K. Zsupán (1970) The Structure of Flavofungin. *Tetrahedron Lett.* 7 : 471-474.
48. Bohlmann, F., E. V. Dehmlow, H.-J. Neuhahn, R. Brandt and H. Bethke (1970) Neue Heptaen-Makrolide II, Grundskelett der Funktionellen Gruppen und Struktur der Aglykone. *Tetrahedron* 26(9) : 2199-2207.
49. Bohlmann, F., E. V. Dehmlow, H.-J. Neuhahn, R. Brandt and B. Reinicke (1970) Neue Heptaen-Makrolide I, Charakterisierung und Abbau. *Tetrahedron* 26(9) : 2191-2198.
50. Bonner, D. P., W. Mechlinski and C. P. Schaffner (1972) Polyene Macrolide Derivatives. III. Biological Properties of Polyene Macrolide Ester Salts. *J. Antibiot.* 25(4) : 261-262.
51. Bonner, D. P., W. Mechlinski and C. P. Schaffner (1973) Comparative Stability of Amphotericin B and Its Methyl Ester. Program and Abstr. 13th Intersci. Conf. Antimicrob. Ag. Chemother., Washington, D.C., September 19-21, 1973: Abstract 264.
52. Borowski, E., L. Falkowski, J. Golik, J. Zielinski, T. Ziminski, W. Mechlinski, E. Jereszek, P. Kolodziejczyk, H. Adlerereutz, C. P. Schaffner and S. Neelakantan (1971) The Structure of Candidin, a Polyene Macrolide Antifungal Antibiotic. *Tetrahedron Lett.* 1971 : 1987-1992.

53. Borowski, E. V., M. A. Malyshkina and M. V. Kotenko (1965b) Micoheptin, a New Antifungal Antibiotic from the Group of Nonaromatic Heptaens. *Antibiotiki* 10(9) : 776-780.
54. Borowski, E., M. Malyshkina, T. Kotienko and S. Soloviev (1965a) Mycoheptin, a New Member of Nonaromatic Group of Heptaene Macrolide Antifungal Antibiotics. *Chemotherapia* 9(6) : 359-369.
55. Borowski, E. and C. P. Schaffner (1961) Structural Relationships Among Heptaenes. *Proc. 5th Int. Congr. Biochem., Moscow, USSR, 1961. Pergamon Press, London*: 3.
56. Borowski, E., C. P. Schaffner and H. Lechevalier (1961) Perimycin, a Novel Type of Heptaene Antifungal Antibiotic. *Antimicrob. Ag. Annu. 1960* : 532-538.
57. Boyd, A. N. (1961) Antibiotics. Antifungal Antibiotics--Distribution and Classification·Lagosin·Capacidin·Amphotericins·Action of Heptaene Antibiotics·Blastmycin·Cycloheximide·Griseofulvin. *Mf. Chem.* 32 : 318-322.
58. Bradler, G. and H. Thrum (1963) Nourseothricin A und B, zwei neue Antibakterielle Antibiotika einer Streptomyes-noursei-Variante. *Z. Allg. Mikrobiol.* 3 : 105-112.
59. Brazhnikova, M. G., M. K. Kudinova, M. F. Lavrova, V. N. Borisova, E. B. Kruglyak, I. N. Kovsharova, and V. V. Proshlyakova (1971) Isolation, Purification and Physico-Chemical Properties of Lienomycin. *Antibiotiki* 16(6) : 483-487.

60. Bristol Laboratories, Inc. (1958) An Antifungal Antibiotic Designated Ayfactin. British Patent 796,982 (June 25).
61. Brockmann, H. and G. Grothe (1953) Über Actinomycetenfarbstoffe, II. Mitteil.: Limocrocin, ein gelber Actinomycetenfarbstoff. Chem. Ber. 86(9) : 1110-1115.
62. Brockmann, H. and H.-U. May (1955) Über Actinomycetenfarbstoffe, III. Mitteil.: Zur Konstitution des Limocrocins. Chem. Ber. 88(3) : 419-423.
63. Brockmann, H., H.-U. May, W. Lenk and H. Brockmann, Jr. (1969) Actinomycetenfarbstoffe, X. Die Konstitution des Limocrocins. Chem. Ber. 102(9) : 3217-3223.
64. Brown, R. and E. L. Hazen (1959a) A New Member of the Polyene Antibiotic Group. Program, Symp. on Antibiotics, Prague, Czechoslovakia, May 18-23, 1959: 21. Title No. 78.
65. Brown, R. and E. L. Hazen (1959b) A new Member of the Polyene Antibiotic Group. Abstr. Commun., Symp. on Antibiotics, Prague, Czechoslovakia, May 18-23, 1959: 4-5.
66. Brown, R. and E. L. Hazen (1960a) Capacidin. N.Y. State Dept. Health, Annu. Rept., Div. Labs. and Res. 1959 : 50-52; Chem. Abstr. 54 : 2284h (1960).
67. Brown, H. and E. L. Hazen (1960b) A New Member of the Polyene Antibiotic Group: Capacidin. Proc. Symp. on Antibiotics, Prague, Czechoslovakia, May 18-23, 1959: 72-74.

68. Brown, R. and E. L. Hazen (1960c) Capacidin, a New Member of the Polyene Antibiotic Group. *Antibiot. Chemother.* 10(11) : 702-708.
69. Bruzzese, T., I. Binda, A. Di Nardo, G. Ghielmetti and M. Riva (1972) Partricin Methyl Ester, a Semisynthetic Polyene Antibiotic. *Experientia* 28(12) : 1515-1516.
70. Bruzzese, T. and R. Ferrari (to SPA-Società Prodotti Antibiotici S. P. A.) (1973) Partricin. U.S. Patent 3,773,925 (November 20).
71. Burke, R. C., J. H. Swartz, S. S. Chapman, W.-y Huang (1954) Mycoticin, a New Antifungal Antibiotic. 1. Preliminary Paper. *J. Invest. Dermatol.* 23 : 163-168.
72. Burns, S. and D. F. Holtmann (1959) Tenneccetin: A New Antifungal Antibiotic. General Characteristics. *Antibiot. Chemother.* 9(7) : 398-405.
73. Bush, J. A. (1956) Isolation of a Microbial Product Affecting the Synthesis of a Tetraene Antibiotic by a Strain of Streptomyces aureus. M.S. Thesis, Rutgers University.
74. Calot, L. and A. P. Cercos (1963a) Streptomyces ornatus, nov. sp. y Streptomyces erumpens, nov. sp. Productores de los Antibioticos 17044 y 17732. *Rev. Invest. Agr.* 17(3) : 303-312.
75. Calot, L. and A. P. Cercos (1963b) Streptomyces ornatus, nov. sp. et Streptomyces erumpens, nov. sp. Producteurs d'ornamicine et Antibiotique 17732. *Ann. Inst. Pasteur* 105 : 159-161.

76. Cassinelli, G., A. Grein, P. Orezzi, P. Pennella and A. SanFilippo
(1966) New Antibiotics Produced by Streptoverticillium orinoci.
Arch. Mikrobiol. 55(4) : 358-368.
77. Cataldi, M. S., V. Lopez, J. Pahn and O. L. Galmarini (to Olin
Mathieson Chemical Corporation) (1964) Gerobriecin. U.S. Patent
3,159,541 (December 1).
78. Cercos, A. P., B. L. Eilberg, J. G. Goyena, J. Souto, E. E. Vautier
and I. Widuczynski (1962) Misionina: Antibiotico Poliénico
Producido por Streptomyces misionensis n. sp. Rev. Invest. Agr.
16(1) : 5-27.
79. Chas. Pfizer & Co., Inc. (1954) A New Antibiotic, and a Process
for the Production Thereof. British Patent 719,878 (December
8).
80. Chas. Pfizer & Co., Inc. (1960) Antibiotic Designated Compound 616
from Streptomyces parvisporogenes. British Patent 832,391
(April 6).
81. Chas. Pfizer & Co., Inc. (1960) A New Antibiotic Designated Compound
Number 58. British Patent 841,495 (July 13).
82. Chirigos, M. A., J. W. Pearson, G. J. Spahn, D. P. Bonner, W.
Mechlinski and C. P. Schaffner (1973) Effects of Amphotericin B
Methyl Ester on in vitro and in vivo Replication of Murine
Oncogenic Viruses. Program and Abstr. 13th Intersci. Conf.
Antimicrob. Ag. Chemother., Washington, D.C., September 19-21,
1973: Abstract 250.

83. Chugai Seiyaku Kabushiki Kaisha (1963) Nouvelle Substance Antibiotique.
French Patent 1872M (June 24).
84. Conover, L. H. (1971) Discovery of Drugs from Microbiological
Sources. Advan. Chem. Ser. 108 : 33-80.
85. Cope, A. C., R. K. Bly, E. P. Burrows, O. J. Ceder, E. Ciganek, B.
T. Gillis, R. F. Porter and H. E. Johnson (1962) Fungichromin:
Complete Structure and Absolute Configuration at C₂₆ and C₂₇. J.
Am. Chem. Soc. 84(11) : 2170-2178.
86. Coronelli, C., R. C. Pasqualucci, J. E. Thiemann and G. Tamoni
(1967) Mycotrienin, a New Polyene Antibiotic Isolated from
Streptomyces. J. Antibiot. 20A(6) : 329-333.
87. Craveri, R., C. Cornelli (sic) and P. Sensi (to Lepetit S. P. A.)
(1974) Tetrahexin and Process for Preparing Same. U.S. Patent
3,808,331 (April 30).
88. Craveri, R., C. Coronelli, G. Beretta, G. Tamoni and P. Sensi
(1962) Isolamento e Studio dell'antibiotico Tetraesin (sic).
Annu. Microbiol. Enzimol. 12(4/6) : 155-164.
89. Craveri, R. and G. Giolitti (1956) Isolamento e Studio di un
Antibiotico Antifungino. Annu. Microbiol. Enzimol. 6(1/4): 81-
92.
90. Craveri, R., O. L. Shotwell, R. G. Dworschack, T. G. Pridham and
R. W. Jackson (1960) Antibiotics Against Plant Disease. VII.
The Antifungal Heptaene Component (F-17-C) Produced by Streptomyces
cinnamoneus f. azacoluta. Antibiot. Chemother. 10(7) : 403-439.

91. Craveri, R., and U. Veronesi (1956) The Effect Upon Mitosis in Allium cepa of an Antifungal Antibiotic Produced by Streptomyces sp. Exp. Cell Res. 11(3) : 560-567.
92. Cross, T. and M. Goodfellow (1973) Taxonomy and Classification of the Actinomycetes. In: Actinomycetales: Characteristics and Practical Importance, Sykes, G. and Skime, F. A., eds., London Academic Press 11-112.
93. Dahlberg, J. E., R. W. Simpson, D. P. Bonner, W. Mechlinski and C. P. Schaffner (1973) Virucidal Effect of Water-Soluble Polyene Antibiotics on Steroid-Containing Animal Viruses. Program and Abstr. 13th Intersci. Conf. Antimicrob. Ag. Chemother., Washington, D.C., September 19-21, 1973: Abstract 190.
94. Danesino, V. and R. Pellegrini (1973) Electron Microscopy Changes in Trichomonas vaginalis Induced by Methyl Partricin. Program and Abstr. 13th Intersci. Conf. Antimicrob. Ag. Chemother., Washington, D.C., September 19-21, 1973: Abstract 93.
95. Dave, C. V., S. V. Gogate and P. N. Kaul (1962) Some Polyene Antibiotics as Potential Cardiac Stimulants. Hindustan Antibiot. Bull. 5(1) : 28-29.
96. Davisson, J. W., F. W. Tanner, Jr., A. C. Finlay and J. H. Kane (to Chas. Pfizer & Co., Inc.) (1960) Rimocidin and Methods for Its Recovery. U.S. Patent 2,963,401 (December 6).
97. Davisson, J. W., F. W. Tanner, Jr., A. C. Finlay and I. A. Solomons (1951) Rimocidin, a New Antibiotic. Antibiot. Chemother. 1(5) : 289-290.

98. Delcambe, L. (1968) Information Bulletin No. 6, International Center of Information of Antibiotics in Collaboration with W.H.O. Utud'imprim, Liège, Belgium, 150 pp.
99. Deshpande, G. R. and N. Narasimhachari (1967) Chemistry of Aureofungin. II. Identification of N-Methyl-p-Aminoacetophenone in Aureofungin and Isolation of Another Heptaene from Commercial Samples of Aureofungin. Hindustan Antibiot. Bull. 9(3) : 163.
100. Despois, R., S. Pinnert-Sindico, L. Ninet and J. Preud'homme (1956) Trois Antibiotiques de Groupes Différents Produits par une M[^]me Souche de Streptomyces. G. Microbiol. 2 : 76-90.
101. Dornberger, K., R. Fugner, G. Bradler, and H. Thrum (1971) Tetramycin, a New Polyene Antibiotic. J. Antibiot. 24(3) : 172-177.
102. Drouhet, E. (1963) Nouveaux Antibiotiques Antifongiques. In: Antibiotica et Chemotherapia. Advances. Vol. II, Part I. New Antibiotics, Gsell, O. (ed.). Side Effects of Modern Chemotherapy, 2nd Int. Symp. Chemotherapy, Naples, Italy, 1961, Kuemmerle, H. P., Preziosi, P. and Rentschnick, P. (eds.): 21-50; Chem. Abstr. 58 : 12367c (1963).
103. Duggar, B. M. (1948) Aureomycin: A Product of the Continuing Search for New Antibiotics. Ann. N.Y. Acad. Sci. 51(Art. 2) : 177-181.
104. Dutcher, J. D. (1968) Polyene Antibiotics. In: Kirk-Othmer Encyclopedia of Chemical Technology. John Wiley & Sons, Inc., New York, N.Y., 2nd rev. ed. 16 : 133-143.

105. Dutcher, J. D., W. Gold, J. F. Pagano and J. Vandeputte (to Olin Mathieson Chemical Corporation) (1959a) Amphotericin A and Its Salts. U.S. Patent 2,908,612 (October 13).
106. Dutcher, J., W. Gold, J. F. Pagano and J. Vandeputte (to Olin Mathieson Chemical Corporation) (1959b) Amphotericin B, Its Production and Its Salts. U.S. Patent 2,908,611 (October 13).
107. Dvornich, W., O. L. Shotwell, R. G. Benedict, T. G. Pridham and L. A. Lindenfelser (1954) Further Studies on Cinnamycin, a Polypeptide Antibiotic. *Antibiot. Chemother.* 4(11) : 1135-1142.
108. Egorenkova, A. N. (1964) The effect of Polyenic Antibiotics on Phytopathogenic Fungi in vitro. *Antibiotiki* 9(10) : 919-923.
109. Ehrlich, J., M. P. Knudsen and Q. R. Bartz (to Parke, Davis & Co.) (1955) Production of Antibiotic Sistomycin Using Streptomyces viridosporus. Canadian Patent 514,894 (July 19).
110. Eilberg, B. L. and J. Souto (1966) Identification of Streptomyces ornatus Antibiotics. *Rev. Invest. Agropecuar.*, Ser. 2, 3(4) : 43-53.
111. Eisenbrandt, K. (1967) Hexamycin, ein Fungizides Hexaenantibiotikum. *Z. Chem.* 7(8) : 311-312.
112. Eisenbrandt, K. (1968a) Ein Neues Antifungales Hexaenantibiotikum. Hexamycin. I. Produktion, Isolierung und Reinigung des Hexamycins. *J. Prakt. Chem.* 38(1-2) : 9-19.
113. Eisenbrandt, K. (1968b) New Antifungal Hexaene Antibiotic, Hexamycin. II. Properties of Hexamycin. *J. Prakt. Chem.* 38(1-2) : 20-33; *Chem. Abstr.* 69 : 17092d (1968).

114. Eisenbrandt, K., H. J. Müller and M. Klinkowski (1968) Eigenschaften des Hexaenantibiotikums Hexamycin. Z. Allg. Mikrobiol. 8(3) : 175-185.
115. Filippova, A. I., S. N. Solov'ev, N. G. Vasil'eva, A. M. Dumova, N. G. Egorenkova, A. I. Karnaushkina, M. P. Karpenko, T. A. Fradkova and Yu. D. Shenin (1972) Isomerization of Polyenic Antibiotics. Characteristics of Isoleverin A₂. Antibiotiki 17(10) : 932-937; Chem. Abstr. 78 : 92984k (1973).
116. Filippova, M. S., N. S. Landau and M. V. Nefelova (1965) Conditions for the Production of Candicidin Type Antibiotics. Prikl. Biokhim. Mikrobiol. 1(3) : 347-351; Chem. Abstr. 63 : 10626a (1965).
117. Fisher, P. B., E. B. Siegel, D. P. Bonner, W. Mechliniski, V. Bryson and C. P. Schaffner (1973) Studies of Amphotericin B Methyl Ester (AME) in Tissue Culture: 1. Growth Stimulatory Effect of AME on a Permanent Cell Line Derived from Normal Mouse Tissue and Toxicity to a Tumor-Derived Mouse Cell Line. Program and Abstr. 13th Intersci. Conf. Antimicrob. Ag. Chemother., Washington, D.C., September 19-21, 1973: Abstract 265.
118. Frolova, V. I., A. D. Kuzovkov, T. A. Ushakova and R. N. Elizarova (1967) Isolation of the New Pentaenic Antibiotic Aurenin. Khim. Farm. Zh. 1(6) : 36-39; Chem. Abstr. 67 : 120141b (1967).

119. Fu, K. P., B. G. Vad and C. P. Schaffner (1973) Effect of Candicidin, a Heptaene Macrolide, on the Oral Absorption of Cholesterol. Program and Abstr. 13th Intersci. Conf. Antimicrob. Ag. Chemother., Washington, D.C., September 19-21, 1973: Abstract 267.
120. Fugner, R. and G. Bradler (1963) Studien an Polyenantibiotica Bildenden Streptomyces-Stämmen. Z. Allg. Mikrobiol. 3(3) : 173-194.
121. Fujita, H. (1959) Chemical Study of Akitamycin, an Antifungal Antibiotic. J. Antibiot. (Japan) 12B(4) : 297-299.
122. Fukushima, K., K. Ishiwata, S. Kuroda and T. Arai (1973) Identity of Antibiotic P-42-1 Elaborated by Actinomyces tumemacerans with Kanchanomycin and Albofungin. J. Antibiot. 26(2) : 65-69.
123. Fursenko, M. V., R. A. Zhukova, M. A. Malyshkina and A. G. Motorina (1972) Comparative Characterization of Natural Mutants of Trichomycin-Producing Actinomyces hachijoensis Strain 0052. Mikrobiologiya 41(1) : 132-138; Engl. transl.: 110-115.
124. Gaeumann, E., Prelog, V. and Vischer, E. (to Ciba Corporation) (1964) Antibiotics Lankavamycin and Lankavacidin and Process of Production. U.S. Patent 3,118,812 (January 21).
125. Gallo, G. G., C. Coronelli, A. Vigevani and G. C. Lancini (1969) The Structure of Tetrenolin. A New Antibiotic Substance. Tetrahedron 25(3) : 5677-5680.
126. Ganguli, B. N. and V. M. Doctor (1967) Countercurrent Distribution Studies on Hamycin. Appl. Microbiol. 15(1) : 43-48.

127. Gattani, M. L. (1961) Streptomyces griseus Strain 528 NRRL 2607 Antibiotic and Fermentation Process. U.S. Patent 2,990,330 (June 27).
128. Gaumann, E., R. Hutter, W. Keller-Schierlein, L. Neipp, V. Prelog, and H. Zahner (1960) Stoffwechselprodukte von Actinomyceten. Nr. 2. Lankamycin und Lankacidin. Helv. Chim. Acta 43 : 601-606.
129. Gauze, G. F., T. S. Maksimova, O. L. Olkhovatova, E. S. Kudrina, G. B. Ilchenko, G. V. Kochetkova and L. Ya Volkova (1971) Production of Lienomycin by Act. diastatochromogenes var. lienomycini. Antibiotiki 16(5) : 387-390.
130. Gauze, G. F., R. S. Ukholina and M. A. Sveshnikova (1962) Olivomycin-- A New Antibiotic Produced by Actinomyces olivoreticuli. Antibiotiki 7(3) : 34-38.
131. Golyakov, P. N., V. A. Tsyganov and V. M. Morozov (1963) On Actinomycetes that Produce an Antifungal Antibiotic of the Hexaene Type. Mikrobiologiya 32(5) : 763-770; Engl. transl.: 652-657 (1964).
132. Gopalkrishnan, K. S., N. Narasimhachari, V. B. Joshi and M. J. Thirumalachar (1968) Chainin: A New Methylpentaene Antibiotic from a Species of Chainia. Nature 218(5141) : 597-598.
133. Gordon, H. W. (to Julius Schmid Inc.) (1973) Method of Treating Prostatic Hypertrophy. U.S. Patent 3,714,347 (January 30).
134. Gordon, H. W. and C. P. Schaffner (to Julius Schmid Inc.) (1971) Method of Treating Acne. U.S. Patent 3,629,403 (December 21).

135. Gordon, H. W. and C. P. Schaffner (1973) Method for Controlling Absorption of Cholesterol. U.S. Patent 3,714,348 (January 30).
136. Gordon, H. W. and C. P. Schaffner (to Schmid Laboratories, Inc.) (1974) Method for Treating Hypercholesterolemia. U.S. Patent 3,855,409 (December 17).
137. Gordon, M. A. and E. W. Lapa (1966) Durhamycin, a Pentaene Antifungal Antibiotic from Streptomyces durhamensis sp. n. Appl. Microbiol. 14(5) : 754-760.
138. Gottlieb, D., A. Ammann and H. E. Carter (1955) A New Antifungal Agent, Filipin. Plant Dis. Rep. 39(3) : 219; Rev. Appl. Mycol. 35 : 32 (1956).
139. Gottlieb, D., P. K. Bhattacharyya, H. E. Carter and H. W. Anderson (1951) Endomycin, a New Antibiotic. Phytopathology 41(5) : 393-400.
140. Gottlieb, D. and H. L. Pote (1960) Tetrin, an Antifungal Antibiotic. Phytopathology 50(11) : 817-822.
141. Grein, A., C. Spalla, A. Di Marco and G. Canevazzi (1963) Descrizione e Classificazione di un Attinomicete (Streptomyces peucetius nov. sp.) Productore di una Sostanza ad Attività Antitumorale: la Daunomicina. G. Microbiol. 11 : 109-118.
142. Grundy, W. E., A. L. Whitman, B. G. Rdzok, E. J. Rdzok, M. E. Hanes and J. C. Sylvester (1952) Actithiazic Acid. I. Microbiological Studies. Antibiot. Chemother. 2(8) : 399-408.

143. Gupta, K. C. (1964) Monicamycin, a New Polyene Antifungal Antibiotic.
Abstr. 4th Intersci. Conf. Antimicrob. Ag. Chemother. : 20-21.
144. Gupta, K. C. (1965) Monicamycin, a New Polyene Antifungal Antibiotic.
Antimicrob. Ag. Chemother. 1964 : 65-67.
145. Gupta, K. C. (1965) Streptomyces tropicalensis, a New Whorl-
Forming Species of Streptomyces. J. Antibiot. (Japan) 18A(1) :
53-55.
146. Gupta, K. C. and I. C. Chopra (1964) A New Whorl Forming Species
of Streptomyces. Hindustan Antibiot. Bull. 6(4) : 167-169.
147. Gupta, K. C. (1965) Chantalmycin, a New Polyene (Pentaene) Antibacterial
and Antifungal Antibiotic. Abstr. Papers, Fifth Intersci. Conf.
Antimicrob. Ag. Chemother., Washington, D.C., October 17-21,
1965 : 52. Abstract 112.
148. Gyimesi, J., I. Ott, I. Horváth, I. Koczka and K. Magyar (1971)
Antibiotics Produced by Streptomyces. VIII. A New Polyenic
Antibiotic, Oleficin, Exhibiting Antibacterial Activity. J.
Antibiot. 24(5) : 277-282.
149. Hagemann, G., G. Nominé and L. Pénasse (1958) Sur un Antibiotique,
l'hydroxymycine, Produit par un Streptomyces. Ann. Pharm. Fr.
16 : 585-596.
150. Hagemann, G., G. Nominé and L. Pénasse (to Laboratoires Francais
de Chimiothérapie) (1959) Antifungin 4915. German Ausgelegeschrift
1,053,738 (March 26).

151. Hagemann, G., G. Nominé, L. Pénassee and J. Teillon (to Roussel-UCLAF, S.A.) (1962) Fungicidal Compound and Process of Making Same. U.S. Patent 3,052,605 (September 4).
152. Hamilton-Miller, J. M. T. (1973) Chemistry and Biology of the Polyene Macrolide Antibiotics. *Bacteriol. Rev.* 37(2) : 166-196.
153. Hata, T., A. Matsumae, K. Abe, Y. Sano, M. Ohtani and S. Ohmura (1972) Production of Chloramphenicol, Bottromycin and Fradycin. U.S. Patent 3,650,904 (March 21).
154. Hazen, E. L. and R. Brown (1950) Two Antifungal Agents Produced by a Soil Actinomycete. *Science* 112 : 423. Abstract.
155. Hazen, E. L. and R. F. Brown (to Research Corporation) (1957) Nystatin and Method of Producing It. U.S. Patent 2,797,183 (June 25).
156. Henis, Y. and N. Grossowicz (1960) Studies on the Mode of Action of Antifungal Heptaene Antibiotics. *J. Gen. Microbiol.* 23(2) : 345-355.
157. Henis, Y., N. Grossowicz and M. Aschner (1957) Heptamycin, an Antifungal and Antiprotozoal Antibiotic. *Bull. Res. Counc. Isr.* 6E : VII.
158. Hickey, R. J., C. J. Corum, P. H. Hidy, I. R. Cohen, U. F. B. Nager and E. Kropp (1952) Ascotin, an Antifungal Antibiotic Produced by a Streptomycete. *Antibiot. Chemother.* 2(9) : 472-483.

159. Higashide, E., T. Fugono, K. Hatano and M. Shibata (1971a) Studies on T-2636 Antibiotics. I. Taxonomy of Streptomyces rochei var. volubilis var. nov. and Production of the Antibiotics and an Esterase. J. Antibiot. 24(1) : 1-12.
160. Higashide, E., M. Shibata, S. Harada, T. Kishi and K. Mizuno (to Takeda Chemical Industries, Ltd.) (1970) Preparation of New Antibiotics. Japanese Patent 6071 (February 28); Chem. Abstr. 73 : 2670z (1970).
161. Higashide, E., M. Shibata, S. Harada, T. Kishi and K. Mizuno (to Takeda Chemical Industries, Ltd.) (1971b) Method for Producing Antibiotic T-2636. U.S. Patent 3,626,055 (December 7).
162. Horii, S., T. Shima and A. Ouchida (1970) Partial Structure of the Eurocidin Complex. J. Antibiot. 23(2) : 102-104.
163. Hosoya, S., N. Hamamura and S. Ogata (1955) Separation of Trichomycin A, B, and C Fractions. J. Antibiot. (Japan) 8A(1) : 48-50.
164. Hosoya, S., N. Komatsu and M. Soeda (1951) Rotaventin, an Antifungal Agent Isolated from Streptomyces reticuli. Jpn. J. Exp. Med. 21(3) : 279-283.
165. Hosoya, S., N. Komatsu and M. Soeda (1952a) An Antifungal Agent Isolated from Mycelium of Streptomyces griseocarneus. Jpn. J. Exp. Med. 22(1) : 23-25.
166. Hosoya, S., N. Komatsu and M. Soeda (1952b) Rotaventin an Antifungal Agent Isolated from Mycelium of Streptomyces reticuli. J. Antibiot. (Japan) 5(8) : 451-453.

167. Hosoya, S., N. Komatsu, M. Soeda, T. Yamaguchi and Y. Sonoda
(1952) Trichomycin, a New Antibiotic with Trichomonadocidal and
Antifungal Activities. J. Antibiot. 5(10) : 564-566.
168. Hosoya, S. and M. Soeda (1960) Yurotin (sic) A, an Antibiotic
Substance. Japanese Patent 17047 (November 17): Chem. Abstr.
55: 20340c (1961).
169. Hosoya, S., M. Soeda, K. Okada and H. Fujita (1959) Studies on
Eurotin, an Antifungal and Anticandida Antibiotic. I. J. East.
Reg. Med. Soc. Jpn. 6 : 285-292; Chem. Abstr. 54 : 16537c (1960).
170. Hütter, R. (1963) Zur Systematik der Actinomyceten. 10. Streptomyces
mit griseus-Luftmycel. G. Microbiol. 11 : 191-246.
171. Hütter, R., W. Keller-Schierlein and H. Zähner (1961) Zur Systematik
der Actinomyceten. 6. Die Produzenten von Makrolid-Antibiotika.
Arch. Mikrobiol. 39 : 158-194.
172. Igarashi, S., K. Ogata and A. Miyake (1955) Studies on Streptomyces.
Fradicin-Mycelin Group Substance. J. Antibiot. (Japan) 8B(4) :
113-117; 9A(6) : 226. Abstract (1956).
173. Igarasi (sic), S., K. Ogata and A. Miyake (1956) Studies on
Streptomyces. An Antifungal Substance Produced by Streptomyces
aureofaciens. J. Antibiot. (Japan) 9B(2) : 79-80.
174. Igarasi (sic), S., K. Ogata and A. Miyake (1956) Studies on Streptomyces:
Pentaene Group Substance. I. An Antifungal Antibiotic Produced
by Streptomyces acidomyceticus. J. Antibiot. (Japan) 9B(3) :
101-103.

175. Inoue, M. (1953) The Isolation of Streptothricin Type 3. Studies on the Antibiotic Substances from Actinomyces, XXIX. J. Antibiot. (Japan) 6A(3) : 122-129.
176. Ishibashi, H. (1957a) Toyamycin, an Antifungal Antibiotic. Presented at 104th Jpn. Conf. Antibiot., May 1957; Cited In: J. Antibiot. (Japan) 12B(4) : 294. Reference 4 (1959).
177. Ishibashi, H. (1957b) Presented at Meeting Jpn. Antibiot. Res. Assoc., September 1975; Cited In: J. Antibiot. (Japan) 13A(2) 11 : 116, 120. Reference 8 (1960).
178. Ishibashi, H. (1960) Toyamycin, a New Antifungal and Antiyeast Substance. Japanese Patent 3849 (April 18); Chem. Abstr. 54 : 23179e (1960).
179. Iwashita, K., K. Ueda and T. Fujimoto (1962) Cure Test for Skin Disease by Using New Antibiotic for Eumycetes, Takamycin. J. Antibiot. (Japan) 15B(2) : 119. Abstract.
180. Johnson, L. E. and A. Dietz (1971) Scopafungin, a Crystalline Antibiotic Produced by Streptomyces hygroscopicus var. enhygrus var. nova. Appl. Microbiol. 22(3) : 303-308.
181. Julius Schmid Inc. (1970) Method and Compositions for the Treatment of Prostatic Hypertrophy in Non-Human Animals Using Compounds Consisting of an Antifungal Antibiotic Polyenic Macrolide Nucleus. British Patent 1,186,888 (April 8).

182. Kalasz, H., J. Gyimesi, I. Horvath, K. Magyar, V. Scholtz, V. Szell, B. Doczi, I. Szabo and L. Tolgyesi (to Gyogyszerkutato Intezet) (1968) Mycoheptin. Hungarian Patent 155,202 (October 22); Chem. Abstr. 70 : 46191m (1969).
183. Kalasz, H., J. Gyimesi, A. Uskert, K. Magyar and I. Horvath (1967) Countercurrent Distribution of Trichomycin, Candicidin, and Hamycin, the Heptaene Macrolide Antifungal Antibiotics of Aromatic Subgroup. Acta Chim. Acad. Sci., Hung. 51(4) : 431-434; Chem. Abstr. 66 : 98457q (1967).
184. Kalasz, H., K. Magyar, I. Horvath, J. Gyimesi, E. Glaz, V. Szell, I. Szabo, B. Doczi and K. G. Hegyaljai (to Gyogyszerkutato Intezet) (1969) Heptafungin. Hungarian Patent 155,813 (March 24); Chem. Abstr. 71 : 20924y (1969).
- 184a. Kalasz, H., V. Szell, J. Gyimesi, K. Magyar, I. Horváth, and I. Szabo. (1972) Antibiotics Produced by Streptomyces. IX Heptafungin-A, a New Heptaene Macrolide Antibiotic. Acta Microbiol. 19(2) : 111-120; Chem. Abstr. 79 : 3780w (1973).
185. Kannan, L. V., A. W. Khan, M. R. Kutty and V. C. Vora (1967) A New Heptaene Antibiotic (X-63) from a Streptomyces species. J. Antibiot. 20(5) : 293-294.
186. Kaplan, M. A., B. Heinemann, I. Mydlinski, F. H. Buckwalter, J. Lein and I. R. Hooper (1958) An Antifungal Antibiotic (AYF) Produced by a Strain of Streptomyces aureofaciens. Antibiot. Chemother. 8(10) : 491495.
187. Katagiri, K., K. Sato and S. Nishiyama (1957) New Antibiotics from Streptomyces No. E-212. I. Observation on the Simultaneous Production of 7 Antibiotics by a Streptomyces. Ann. Rept. Shionogi Res. Lab. 7 : 715-723; Chem. Abstr. 52 : 13859 (1958).

188. Khodzibaeva, S. M. and S. A. Askarova (1970) Occurrence and Distribution of Tetraene Antibiotics in Different Organs of Cotton. Uzb. Biol. Zh. 14(3) : 56; Chem. Abstr. 73 : 106422m (1970).
189. Khokhlova, Yu. M., A. V. Puchnina, E. F. Oparysheva, L. M. Golovkina and N. O. Blinov (1966) Classification and Identification of Antifungal Antibiotics by Chromatographic Spectra. Izv. Akad. Nauk SSSR Ser. Biol. 3 : 433-440.
190. Kikuchi, K. (1955) Antibiotics from Streptomyces sp. No. E-212. I. Studies on Streptomyces Antibiotics XXXV. J. Antibiot. (Japan) 8A(5) : 145-147.
191. Kinsky, S. C. (1967) Polyene Antibiotics. In: Antibiotics. Vol. I. Mechanism of Action, Gottlieb, D. and Shaw, P. D. (eds.), Springer-Verlag, New York, Inc.: 122-141; 749-750.
192. Kinsky, S. C. and M. M. Weber (1965) Lack of Inhibition of Neurospora Mitochondrial Electron Transport by Polyene Antibiotics. Bacteriol. Proc. 1965 : 96. Abstract P140.
193. Klimov, A. N. and V. N. Litvinova (1968) The Mechanism of Action of Polyene Antibiotics. Antibiotiki 13(1) : 88-94.
194. Koe, B. K., F. W. Tanner, Jr., K. V. Rao, B. A. Sobin and W. D. Celmer (1958) PA 150, PA 153, and PA 166: New Polyene Antifungal Antibiotics. Antibiot. Annu. 1957/1958 : 897-905.
195. Kondo, S.-i., T. Miyakawa, H. Yumoto, M. Sezaki, M. Shimura, K. Sato and T. Hara (1962) Isolation and Characterization of a New Antibiotic, Bandamycin B. J. Antibiot. 15A(4) : 157-160.

196. Kondo, S.i., J. M. J. Sakamoto and H. Yumoto (1961) Bandamycin, a New Antibiotic. J. Antibiot. (Japan) 14A(6) : 365-366.
197. Konev, Yu. E. (1964) Verticillate Actinomycetes--The Producers of Pentaene Antibiotics. Mikrobiologiya 33(4) : 622-630; Engl. transl.: 561-567.
198. Konev, Yu. E. and E. N. Bol'shakova (1963) Antibiotic Properties of Streptomyces olivoverticillatus. Materially 3ei [Tret'ei] Nauchn. Sessii Leningr. Inst. Antibiotikov, Leningrad, Sb.- 1963 : 37-38; Chem. Abstr. 61 : 11058d (1964).
199. Konev, Yu. E. and V. A. Tsyganov (1962) A New Species in the Group of Yellow Actinomycetes, Actinomyces xantholiticus N. sp. Mikrobiologiya 31(6) : 1023-1029; Engl. transl.: 829-833 (1963).
200. Konev, Yu. E. and V. A. Tsyganov (1967) New Species of Streptoverticillium Producing a New Antibiotic: Mycoheptin. Antibiotiki 12(10) : 874-880.
201. Konev, Yu. E., V. A. Tsyganov, E. D. Etingov, N. M. Zavalnaya and A. I. Filippova (1973) Isolation and Identification of Heptaene Antibiotic Produced by Actinomyces helvoloviolaceus sp. n. Antibiotiki 18(4) : 354-358.
202. Koninklijke Nederlandsche Gist - en Spiritusfabriek N. V. (1960) Pimaricin and Process of Producing Same. British Patent 844,289 (August 10).

203. Korenyako, A. I., Yu. M. Khokhlova, N. I. Nikitina and A. V. Puchnina (1961) Actinomycetes--Producers of Heptaene Antibiotics. Mikrobiologiya 30(4) : 633-641; Engl. transl.: 531-537 (1962).
204. Kotenko, T. V., N. P. Barashkova and Yu. D. Shenin (1970) (On albotetren). V kn: Material 6th Scientific Session Leningrad Scientific Research. in-ta Antibiotics. L. p. 84; Cited In: V. A. Tsyganov et al., Antibiotiki 18(3) : 197-198 (1973).
205. Kotiuszko, D., H. Morawska and N. Porowska (1972) Polifungin, a New Antifungal Antibiotic. III. Biochromatographic Studies on Polifungin Complex Produced by Streptomyces noursei var. polifungini and Its Mutants. Acta Microbiol. Pol. M. 4A(21), No. 4 : 201-211; Microbiol. Abstr. 2C(5). Abstract 2C3175 (1973).
206. Kotiuszko, D., K. Wituch, H. Morowska and D. Siejko (1971) Polifungin, a New Antifungal Antibiotic. I. Morphological, Cultural, and Physiological Properties of Streptomyces sp. Strain Producing a New Complex of Tetraene Antibiotics. Acta Microbiol. Pol. M. 3A(20), No. 3-4 : 135-143.
207. Krasil'nikov, N. A. and A. D. Kovesnikov (1962) Actinomyces tumemacerans n. sp. A New Species Causing Destruction of Plant Tumors. Mikrobiologiya 31(4) : 589-594; Engl. transl.: 483-486 (1963).
208. Krasil'nikov, N. A., K. A. Vinogradova, V. A. Poltorak, L. I. Petrova and A. B. Silaev (1971) Production of a Flavofungin-Like Antibiotic by Actinomyces bruneofungus sp. nov. Antibiotiki 16(3) : 197-204.

209. Kuimova, T. F., K. Fukushima, S. Kuroda and T. Arai (1971) Studies on Actinomyces tumemacerans INMI P-42 with Particular Reference to Antibiotic Production. J. Antibiot. 24(2) : 69-76.
210. Kuznetsov, V. D., V. A. Poltorak and S. N. Filippova (1973) Study on Antibiotic Complex Produced by Actinomyces roseo-luteus. Antibiotiki 18(5) : 428-431.
211. Kuroya, M. (to Mitsubishi Chemical Industries Co.) (1954) Antibiotic Substance, Flavacid. Japanese Patent 8547 (December 24); Chem. Abstr. 50: 9696g (1956).
212. Kuroya, M., B. Takahashi, I. Shimizu and I. Takahashi (1951) Studies on the Antibiotic Substances from Actinomyces, XVIII. Antibiotic Spectra of the 1st Group Streptomyces Against Several Yeast and Fungi, with Special Reference to the Characteristics of the Antibiotics of the 1st Group Streptomyces. J. Antibiot. (Japan) 4(6) : 367-372.
213. Kutzner, H. J. and S. A. Waksman (1959) Streptomyces coelicolor "Muller and Streptomyces violaceoruber Waksman and Curtis, Two Distinctly Different Organisms. J. Bacteriol. 78(4) : 528-538.
214. Kuznetsov, V. D. (1960) Actinomycetes from Some Soils of the Pamirs and Their Antagonistic Properties. Mikrobiologiya 29(4) : 563-570; Engl. transl.: 409-414 (1961).
215. Kuznetsov, V. D. (1962) Systematic Position of Certain Actinomycetes Producing Heptaenic Antibiotics. Antibiotiki 7(8) : 675-679.

216. Kuznetsov, V. D., N. O. Blinov and N. M. Vikhrova (1962) Production of a Pentaene and Polypeptide Antibiotic by a Verticillate Actinomycete. *Mikrobiologiya* 31(5) : 811-815; Engl. transl. : 658-661 (1963).
217. Kuznetsov, V. D., I. V. Yangulova, Yu. M. Khokhlova, N. O. Blinov and Ya. I. Rautenshtein (1969) Taxonomy of a Collection of Strains of Actinomycetes Producing Antibiotics of the Candicidin and Antimycin A Type. *Mikrobiologiya* 38(4) : 701-708; Engl. transl.: 585-591.
218. Lafourcade, S. (1955) Activators and Inhibitors in Alcohol Fermentation of Grape Musts. *Ann. Inst. Nat. Rech. Agron. Ser. E; Ann. Technol. Agr.* 4(1) : 5-66; *Chem. Abstr.* 50 : 7386g (1956).
219. Leben, C., G. J. Stessel and G. W. Keitt (1952) Helixin, an Antibiotic Active Against Certain Fungi and Bacteria. *Mycologia* 44(2) : 159-169.
220. Lechevalier, H., R. F. Acker, C. T. Corke, C. M. Haenseler and S. A. Waksman (1953) Candicidin, a New Antifungal Antibiotic. *Mycologia* 45(2) : 155-171.
221. Lechevalier, H., E. Borowski, J. O. Lampen and C. P. Schaffner (1961) Water-Soluble N-Acetyl Derivatives of Heptaene Macrolide Antifungal Antibiotics: Microbiological Studies. *Antibiot. Chemother.* 11(10) : 640-647.

222. Lechevalier, M. P., H. A. Lechevalier and C. E. Heintz (1973)
Morphological and Chemical Nature of the Sclerotia of Chainia
olivacea Thirumalachar and Sukapure of the Order Actinomycetales.
Int. J. Syst. Bacteriol. 23(2) : 157-170.
223. Lepetit S. p. A. (1967) Tetrahexin, a New Antibiotic. British
Patent 1,057,051 (February 1).
224. Lin, Y.c. and C.-s. Yang (1965) An Antifungal Antibiotic Produced
by a Strain of Streptomyces Isolated from Taiwan Soil. J.
Formosan Med. Assoc. 64 : 446-455 (August); Index Medicus 7(8) :
N-971 (1966).
225. Lindenfelser, L. A., R. G. Benedict, O. L. Shotwell, T. G. Pridham,
F. H. Stodola and R. W. Jackson (to the United States of America
as Represented by the Secretary of Agriculture) (1958) Production
of Antibiotic Mixture Having Antibacterial and Antifungal Activity.
U.S. Patent 2,865,815 (December 23).
226. Lindner, F., J. Schmidt-Thomé, G. Neemann, A. Soder, A. Steigler,
K. H. Wallhäuser and H. Ludwig (to Farbwerke Hoechst Akt. Ges.
vorm. Meister Lucius & Brüning) (1957) Herstellung und Gewinnung
eines Pilzwirksamen Antibiotikums. German Auslegeschrift
1,012,430 (July 18); Chem. Abstr. 54 : 6054c (1960).
227. Locci, R., E. Baldacci and B. P. Baldan (1969) The Genus Streptoverticillium.
A Taxonomic Study. G. Microbiol. 17 : 1-60.

228. Lyons, A. J., Jr. and T. G. Pridham (1966) Streptomyces griseus (Krainisky) Waksman and Henrici. A Taxonomic Study of Some Strains. U.S. Dep. Agric. Bull.; U.S. Dep. Agric. Tech. Bull. No. 1360, 31 pp.
229. Lyra, F. D. de A., M. M. F. de Albuquerque, O. G. de Lima, M. H. D. Maia and G. M. Maciel (1961) Dois Antibióticos Antifúngicos Isolados de Micélio de um Streptomyces sp. (Cépa 1645-IAUR) -- Primeiros Informes. Rev. Inst. Antibiot. Univ. Recife 3(1) : 13-19.
230. Lyra, F. D. de A., J. M. de Araújo, A. L. de Andrade, E. C. da Silva and M. M. F. de Albuquerque (1971) Streptomyces guanamiceticus nov. sp., Produtor dos Antibióticos Guanamicina e Guamicina. Rev. Inst. Antibiot. Univ. Recife 11(1) : 27-33.
231. Lyra, F. D. de A., O. G. de Lima and M. M. F. de Albuquerque (1962) Dois Antibióticos Antifúngicos, 1645-P₁ e 1645-P₂, Isolados de Micélio de um Streptomyces sp. Cepa 1645-IAUR. Características e Propriedades. Rev. Inst. Antibiot. Univ. Recife 4(1/2) : 19-31.
232. Maeda, K., H. Kosaka, K. Yagishita and H. Umezawa (1956) A New Antibiotic, Phleomycin. J. Antibiot. (Japan) 9A(2) : 82-85.
233. Maeda, K., Y. Okami, O. Taya and H. Umezawa (1952) Studies on Antifungal Substances, Phaeofacin and Moldin, Produced by Streptomyces sp. Jpn. J. Med. Sci. Biol. 5 : 327-339.

234. Maeda, K., K. Ooi, H. Kosaka, E. L. Wang and H. Umezawa (1956) On the Simultaneous Production of an Actinomycin and an Eurocidin Group Antibiotic. J. Antibiot. (Japan) 9A(3) : 125-127.
235. Malyshkina, M. A., A. F. Morgunova and V. A. Sannikov (1964) Countercurrent Distribution Method for Identification of Certain Heptaene Antibiotics. Materialy 2-oi [Vtoroi] Konf. Malodykh Uchenykh Leningr. Inst. Antibiot., Leningrad, Sb1964: 54-55; Chem. Abstr. 63 : 8123b (1965).
236. Manwaring, D. G., R. W. Rickards, G. Gaudiano and V. Nicolella (1969) The Biosynthesis of the Macrolide Antibiotic Lucensomycin. J. Antibiot. 22(11) : 545-550.
237. Markovich, A. V., V. A. Tsyganov, S. N. Soloviev, E. I. Iofina, L. G. Senyutenkova, N. P. Barashkova and V. S. Nyn (1964) Culture B-34 and Antibiotic Substances Produced by It. Antibiotiki 9(6) : 491-496; Chem. Abstr. 61 : 5451d (1964).
238. Marsh, W. S. and K. V. Rao (to Chas. Pfizer & Co., Inc.) (1966) Antibiotic PA 166 and Method of Preparing. U.S. Patent 3,264,185 (August 2).
239. Martin, J. F. and L. E. McDaniel (1973a) Study of the Components of Candihexin A New Polyene Macrolide Antifungal Antibiotic. Abstr. 73rd Ann. Meet. Am. Soc. Microbiol. 108. Abstr. M207.
240. Martin, J. F. and L. E. McDaniel (1973b) Time-Sequence of Formation and Bioactivity of Two Polyene Antibiotic Complexes. Program and Abstracts 13th Intersci. Conf. Antimicrob. Ag. Chemother., Abstr. 44.

241. Martin, J. H., A. J. Shay, L. M. Pruess, J. N. Porter, J. H. Mowat and N. Bohonos (1955) Paper Chromatographic Studies of Antibiotics Produced by a Streptomyces aureofaciens. Antibiot. Annu. 1954/1955 : 1020-1024.
242. Martin, J. H. E. J. and J. N. Porter (to American Cyanamid Company) (1972) Antifungal BH 890. U.S. Patent 3,700,769 (October 24).
243. Matsumae, A. (1974) Fundamental Studies of the Genus Kitasatoa. Abstracts, Post-Congress Symposium on Actinomycetes, Kyoto, Japan, September 8-9, 1974. The Actinomycetologist No. 24 (August) : 14.
244. Matsumae, A., M. Ohtani, H. Takeshima and T. Hata (1968) A New Genus of the Actinomycetales: Kitasatoa gen. nov. J. Antibiot. 21(10) : 616-625.
245. Matsuoka, M. (1960) Biological Studies on Antifungal Substances Produced by Streptomyces fungicidicus. J. Antibiot. (Japan) 13A(2) : 121-124.
246. Matsuoka, M. and H. Umezawa (1960) Unamycin, an Antifungal Substance Produced by Streptomyces fungicidicus. J. Antibiot. (Japan) 13A(2) : 114-120.
247. McDaniel, L. E., C. P. Schaffner and E. G. Bailey (to Warner-Lambert Pharmaceutical Company) (1965) Production of Fungimycin. U.S. Patent 3,182,004 (May 4).
248. Mechliniski, W. (1973) The Polyene Antifungal Antibiotics. In: Handbook of Microbiology, Volume III. Microbial Products, Laskin, A. I. and Lechevalier, H. A. (eds.), pp. 93-107.

249. Mechliniski, W. and C. P. Schaffner (1972) Polyene Macrolide Derivatives.
I. N-Acylation and Esterification Reactions with Amphotericin
B. J. Antibiot. 25(4) : 256-258.
250. Misato, T., K.-t. Hwang, S. Shirato, A. Kiyono, M. Shibuya and S.
Aizawa (to Kaken-Kagaku Chemical Co., Ltd. and Rikagaku Inst.)
(1970) Method for Producing a New Antibiotic, Robigocidin A.
Japanese Patent 17,598 (June 17); Chem. Abstr. 73 : 86556c
(1970).
251. Misato, T. and H. Yonehara (1968) Pesticidal Antibiotics. Kagaku
No Ryoiki 22(7) : 618-623; Chem. Abstr. 69 : 75610g (1968).
252. Mitskevich, V. M., T. V. Kotenko, V. A. Tsyganov and Yu. D. Shenin
(1973) A New Tetraene Antibiotic, Flavoviridomycin. Antibiotiki
18(10) : 867-872.
253. Muftic, M. (1968) Solubilization of Polyenes by Water-Soluble
Steroids. Quart. J. Crude Drug Res. 8(3) : 1274-1280; Chem.
Abstr. 22885 (1969).
254. Nakazawa, K. (1955) Studies on Streptomycetes. Eurocidin, an
Antibiotic Produced by Streptomyces albireticuli (III). J.
Agric. Chem. Soc. Japan 29(9) : 650-659.
255. Nakazawa, K. (1966) Studies on the Life History of Streptomyces
No. 5866. (5). On the Fruit Body and the Vesicle. Annu. Rep.
Takeda Res. Lab. 25 : 24-31.
256. Nakazawa, K., et al. (1953) On Eurocidin and Enteromycin. Report
at Meeting of Japan Antibiotics Research Association. September;
Referred to in J. Antibiot. (Japan) 7A : 98-103 (1954).

257. Nakazawa, K., M. Shibata, M. Honjo, Y. Hamada, J. Kaneko and Y. Tokui (to Takeda Pharmaceutical Industries Co.) (1955) Preparation of New Antibiotic, Candimycin. Japanese Patent 8148 (November 10); Chem. Abstr. 51 : 18494a (1957).
258. Namestnikova, V. P. and L. E. L'Vova (1970) A Study of the Conditions for the Fermentation of Actinomyces levoris, the Producer of Levorin. Tr. Leningrad. Nauch. Issled. Inst. Antibiot. 5 : 22-26; Biol. Abstr. 52(12) : 66166 (1971).
259. Narasimhachari, N., S. Ramachandran and M. B. Swami (1966) Purification of Dermostatin, an Antifungal Antibiotic from Streptomyces. Hindustan Antibiot. Bull. 8(3) : 111-112; Chem. Abstr. 65 : 5301c (1966).
260. Narasimhachari, N. and M. B. Swami (1970) Dermostatin: A Revised Hexaene Structure. J. Antibiot. 23(11) : 566.
261. Nefelova, M. V. and I. N. Pozmogova (1960) A Study of the Development of Antifungal Antibiotic-Producing Actinomycetes. Mikrobiologiya 29(6) : 856-861; Engl. transl. 618-621 (1961).
262. Nesemann, G., P. Praue, D. Sukatsch and L. Vértesy (1972) Ein Polyen-Antibiotikum aus Bakterien. Naturwissen. 59 : 81-82.
263. Nikitina, E. T. and G. G. Kazakova (1972) Antibiotic Production by a Proactinomycete Variant of the Roseofungin-Producing Organism. Antibiotiki 17(2) : 114-117.

264. Nikitina, N. I. (1957) Actinomycetes of the Globisporus Group.
Inaug. Dissert., Moscow. In: Kostachev, A. E., Mikrobiologiya
27(1) : 141-142; Engl. transl. 141-142 (1958).
265. Ninet, L., S. Pinnert and J. Preud'homme (to Rhone-Poulenc S.A.)
(1967) Antifungal Antibiotic and Method of Producing Same. U.S.
Patent 3,330,726 (July 11).
266. Ogata, K. (1949/1950) Studies on Actinomyces and its Antibiotics,
V. Dextromycin, a New Antibiotic Produced by Actinomyces. J.
Antibiot. (Japan) 3(7) : 440-444.
267. Ogata, K., M. Igarashi, N. Fujita, S. Tatsuoka, A. Miyake and T.
Takewaka (1958a) Antifungal Substance, Cabicidine. Japanese
Patent 6648 (August 15); Chem. Abstr. 53 : 22765f (1959).
268. Ogata, K., M. Igarashi, A. Miyake and H. Yamamoto (to Takeda
Pharmaceutical Ind., Ltd.) (1957) Mycelin-IMO, a New Antibiotic.
Japanese Patent 5898 (August 3); Chem. Abstr. 52 : 20917h (1958).
269. Ogata, K., S. Igarashi and Y. Nakao (to Research Foundation for
Fermentation) (1958b) Culture Medium for Screening of Bacteria,
Yeasts, and Molds. Japanese Patent 9245 (October 17); Chem.
Abstr. 53 : 6545h (1959).
270. Ogawa, H., T. Itō, S. Inoue and M. Nishio (1960) Chemical Study on
Moldcidin B and Its Identification with Pentamycin. J. Antibiot.
(Japan) 13A(5) : 353-355.

271. Ogi, K. (1953) Rapid and Simple Method for Screening Antimycobacterial Streptomyces. Part 1. Annu. Rep. Inst. Putrefaction Res. (Japan) 6 : 126-000.
272. Okami, Y., R. Utahara, S. Nakamura and H. Umezawa (1954). Studies on Antibiotic Actinomycetes, IX. On Streptomyces Producing a New Antifungal Substance Mediocidin and Antifungal Substances of Fungicidin-Rimocidin-Chromin Group, Eurocidin Group and Trichomycin-Ascosin-Candicidin Group. J. Antibiot. (Japan) 7A(3) : 98-103; J. Antibiot. (Japan) 7B(9) : 360; Abstract (1954).
273. Oroshnik, W. and A. D. Mebane (1963) The Polyene Antifungal Antibiotics. In: Progress in the Chemistry of Organic Natural Products, Zechmeister, L. (ed.), Springer-Verlag, Vienna, Austria 21 : 55-79.
274. Osato, T., M. Ueda, S. Fukuyama, K. Yagishita, Y. Okami and H. Umezawa (1955) Production of Tertiomycin (a New Antibiotic Substance), Azomycin and Eurocidin by S. eurocidicus. J. Antibiot. (Japan) 8A(4) : 105-109.
275. Oswald, E., R. J. Reedy and W. A. Randall (1956). An Antifungal Agent, 1968, Produced by a New Streptomyces Species. Antibiot. Annu. 1955/1956 : 236-239.
276. Otani, S. (1957) Proceedings, 65th Meet. Japan Antibiot. Res. Assoc., April 1957. J Antibiot. (Japan) 10B(5) : 221, No. 8. On Streptomyces sp., strain 1011 yielding a trichomycin-like Antifungal.

277. Pal, A. and P. Nandi (1964) A New Antifungal Antibiotic Produced by Streptomyces sp. Ac₂435. Experientia 20(6) : 321-322.
278. Pal, A. and P. Nandi (1970) A-435--A New Antifungal Agent. Indian J. Exp. Biol. 8 : 321-323.
279. Pandey, R. C., V. F. German, Y. Nishikawa and K. L. Rinehart, Jr. (1971) Polyene Antibiotics. II. The Structure of Tetrin A. J. Am. Chem. Soc. 93(15) : 3738-3747.
280. Pandey, R. C., N. Narasimhachari, K. L. Rinehart, Jr. and D. S. Millington (1972) Polyene Antibiotics. IV. Structure of Chainin. J. Am. Chem. Soc. 94(12) : 4306-4310.
281. Pandey, R. C. and K. L. Rinehart (1970) Polyene Antibiotics. V. Characterization of Components of the Filipin Complex by Mass Spectrometry. J. Antibiot. 23(8) : 414-417.
282. Pandey, R. C., K. L. Rinehart, Jr., D. S. Millington and M. B. Swami (1973) Structures of Dermostatins A and B. Program and Abstracts, 13th Intersci. Conf. Antimicrob. Ag. Chemother., September 19-21, Washington, D.C. Abstr. 87.
283. Paputskaya, N. I., V. D. Aleeva, E. D. Etingov, M. N. Kuznetsova and V. I. Sukharevich (1970) The Formation of Biologically Active and Inactive Components of Amphotericin B During Culturing. Tr. Leningrad. Sci. Res. Inst. Antibiot. 6 : 136-138; Biol. Abstr. 52(12) : 66164 (1971).
284. Parke, Davis & Company (1952) Sistomycin. Australian Patent 8824.

285. Parke, Davis & Company (1954) Antibiotic and Methods of Obtaining Same. British Patent 712,547 (July 28); Chem. Abstr. 49 : 2682e (1955).
286. Peikrishvili, I. P., Yu. E. Konev, S. N. Soloviev, E. D. Etingov and N. M. Zavalnaya (1972) Characteristics of Actinomycete 243 and Antibiotic Produced by It. Antibiotiki 17(1) : 15-18; Microbiol. Abstr. 7B(5) : 67-68. Abstr. 7B3687 (1972).
287. Perlman, D. (1967) Production of Polyene Antifungal Agents by Streptomycetes. In: Progress in Industrial Microbiology, Hockenhull, D. J. D. (ed.), CRC Press, Cleveland, Ohio 6 : 1-20.
288. Perlman, D. (1970) Some Prospects for the Fermentation Industries. Wallerstein Labs. Commun. 33(112) : 165-175.
289. Pledger, R. A. and H. Lechevalier (1956) Survey of the Production of Polyenic Substances by Soil Streptomycetes. Antibiot. Annu. 1955-1956 : 249-254.
290. Poltorak, V. A., Z. G. Sokolova, K. A. Vinogradova and A. B. Silaev (1972) Trien, An Antifungal Antibiotic, Its Isolation and Properties. Antibiotiki 17(8) : 738-742.
291. Porowska, N., L. Halski, Z. Plóciennik, D. Kotiuszko, H. Morawska, Z. Kowszyk-Gindifer and H. Bojarska-Dahlig (1972) Composition of Polifungin, a New Antifungal Agent. Rec. Trav. Chim. Pays-Bas 91(6) : 780-784; Chem. Abstr. 77 : 66144w (1972); Microbiol. Abstr. 7B(10) : 7B8570 (1972).

292. Pridham, T. G. (1970) New Names and New Combinations in the Order Actinomycetales Buchanan 1917. U.S. Dep. Agric., Agric. Res. Serv., Tech. Bull No. 1424, 55 pp.
293. Pridham, T. G. (1974) Identification of Streptomycetes and Streptoverticillia at the Species Level: Revision of 1965 System. Abstracts, Post-Congress Symposium on Actinomycetes. Kyoto, Japan. September 8-9, 1974; The Actinomycetologist No. 24 : 13-14. Abstract (1974).
294. Pridham, T. G. and A. J. Lyons, Jr. (1969) Progress in Clarification of the Taxonomic and Nomenclatural Status of Some Problem Actinomycetes. Develop. Ind. Microbiol. 10 : 183-221.
295. Pridham, T. G. and A. J. Lyons (1972) Polyenic Antifungal Antibiotics: Systematics of Producers. Program and Abstracts, Twelfth Intersci. Conf. Antimicrob. Ag. Chemother., Atlantic City, New Jersey, September 26-29, 1972 : 103. Abstract 197.
296. Pridham, T. G., A. J. Lyons, Jr. and H. L. Seckinger (1965) Comparison of Some Dried Holotype and Neotype Specimens of Streptomycetes with Their Living Counterparts. Int. Bull. Bacteriol. Nomencl. Taxon. 15(4) : 191-237.
297. Pridham, T. G., O. L. Shotwell, F. H. Stodola, L. A. Lindenfelser, R. G. Benedict and R. W. Jackson (1956) Antibiotics Against Plant Disease. II. Effective Agents Produced by Streptomyces cinnamomeus forma azacoluta f. nov. Phytopathology 46(10) : 575-581.

298. Rahalkar, A. P. (1968) Neopentaene; Fermentation Studies and Biological Activity. Hindustan Antibiot. Bull. 10(3) : 202-205.
299. Rahalkar, P. W. and M. J. Thirumalachar (1968) Cultural Characters and Identity of Some Streptoverticillium Species Producing Polyene Antibiotics. Hindustan Antibiot. Bull. 11(2) : 90-96.
300. Raigorodskaya, V. Ya., A. P. Bashkovich and V. O. Kul'bakh (1967) Protonization as a Method of Differentiation of Antifungal Polyenic Antibiotics. Khim.-Farm. Zh. 1(6) : 42-45; Chem. Abstr. 67 : 120213b (1967).
301. Raja, S. T. (to Hindustan Antibiotics Limited) (1961) A New Antifungal Antibiotic Hamycin and Process for Its Manufacture. Indian Patent 70,614 (January 6); Chem. Abstr. 56 : 1843h (1962).
302. Rao, K. V. and W. P. Cullen (1958) E-73, an Antitumor Substance, Isolation and Characterization. Abstr. of Papers, 134th Meet. Am. Chem. Soc., Chicago, Illinois, September 7-12, 1958: 22-O--23-O. Abstr. 36.
303. Rao, P. L. N. and B. N. Uma (1958) Formation of Antifungal Antibiotics by a New Streptomyces species. Nature 182(4628) : 115-116.
304. Rao, U. K. and P. L. N. Rao (1967) Actinomycetes: Part II--Purification and Pharmacological Properties of Champamycin-B from Streptomyces champavatii. Indian J. Exp. Biol. 5(1) : 39-43; Chem. Abstr. 67 : 969. Abstract 10330e (1967).

305. Raubitschek, F., R. F. Acker and S. A. Waksman (1952) Production of an Antifungal Agent of the Fungicidin Type by Streptomyces aureus. Antibiot. Chemother. 2(4) : 179-183.
306. Reháček, Z. (1963) Incidence and Possibilities of Screening Antifungal Nonpolyene Antibiotics in Actinomycetes. Folia Microbiol. (Prague) 8 : 228-236.
307. Rhône-Poulenc, S. A. (1964) Antibiotic from Streptomyces gascariensis. French Patent M2620 (July 24); Chem. Abstr. 62: 4575c (1965).
308. Rinehart, K. L., Jr., W. P. Tucker and R. C. Pandey (1971) Polyene Antibiotics. III. The Structure of Tetrin B. J. Am. Chem. Soc. 93(15) : 3747-3751.
309. Robison, R. S., A. Aszalos, N. Kraemer and S. M. Giannini (1971) Production of Fungichromin by Streptoverticillium cinnamomeum subsp. cinnamomeum NRRL B-1285. J. Antibiot. 24(4) : 273.
310. Romankova, A. G., E. R. Zurabova, M. V. Fursenko, V. I. Sukharevich and M. I. Pronina (1971) Selection of Strains of Some Antibiotic-Producing Actinomycetes With Repeated Passages in Submerged Cultures. Antibiotiki 16(7) : 579-583.
311. Roskowski, J., D. Kotiuszko, A. Rafalski, H. Morawska and K. Raczynska-Bojanowska (1972) Characteristics of Mutants of Streptomyces noursei var. polifungini Producing Antibiotics. Acta Microbiol. Pol., Ser. B 4(1) : 9-22; Chem. Abstr. 77 : 86607c (1972); Microbiol. Abstr. 7A(7) : 7A7018 (1972); 7B(6) : 7B4562 (1972).

312. Sakagami, Y., I. Yamaguchi, H. Yonehara, Y. Okimoto, S. Yamanouchi, K. Takiguchi and H. Sakai (1958) Latumcidin, a New Antibiotic from Streptomyces sp. J. Antibiot. (Japan) 11A(1) : 6-13.
313. Sakamoto, J. M. J. (1957) Etude sur Antibiotique Antifongique. I. La Protocidine, un Nouvel Antibiotique Produit par les Streptomycete. J. Antibiot. (Japan) 10A(3) : 128-131.
314. Sakamoto, J. M. J. (1959) Etude sur Antibiotique Antifongique. II. La Cryptocidine, un Nouvel Antibiotique Produit par les Streptomycete. J. Antibiot. (Japan) 12A(1) : 21-28.
315. Sakamoto, J. M. J. (1959) Etude sur Antibiotique Antifongique. III. La Moldcidine A, un Nouvel Antibiotique Produit par les Streptomycete. J. Antibiot. (Japan) 12A(4) : 169-172.
316. Sakamoto, J. M. J. (1959). Studies on Antifungal Substances. V. On a Antibiotic, Moldcidin B, Produced by a Streptomyces. Presentation, 116th Meet. Japan Antibiot. Res. Assoc., September 17, 1959; Referred to in Ogawa, H., et al., J. Antibiot. (Japan) 13A(5) : 353-355 (1960).
317. Sakamoto, J. M. J., S.-i. Kondo, H. Yumoto and M. Arishima (1962) Bundlins A and B, Two Antibiotics Produced by Streptomyces griseofuscus nov. sp. J. Antibiot. (Japan) 15A(2) : 98-102; 156.

318. Sano, A. (1958) Studies on Two New Antibiotics Phycomycin and Quinquamycin. J. Chiba Med. Soc. 33(5) : 868-878.
319. Sawazaki, T., S. Suzuki, G. Nakamura, M. Kawasaki, S. Yamashita, K. Isono, K. Anzai, Y. Serizawa and Y. Sekiyama (1955) Streptomyces Production by a New Strain, Streptomyces mashiensis. J. Antibiot. (Japan) 8A(2) : 44-47.
320. Schaffner, C. P. and E. Borowski (1961) Biologically Active N-Acyl Derivatives of Polyene Macrolide Antifungal Antibiotics. Antibiot. Chemother. 11(11) : 724-732.
321. Schaffner, C. P. and H. W. Gordon (to Julius Schmid Inc.) (1974) Method for Reducing Triglycerides. U.S. Patent 3,793,448 (February 19).
322. Schaffner, C. P. and W. Mechliniski (1972) Polyene Macrolide Derivatives. II. Physical-Chemical Properties of Polyene Macrolide Esters and Their Water Soluble Salts. J. Antibiot. 25(4) : 259-260.
323. Schaffner, C. P., I. D. Steinman, R. S. Safferman and H. Lechevalier (1958) Role of Inorganic Salts and Mevalonic Acid in the Production of a Tetraenic Antifungal Antibiotic. Antibiot. Annu. 1957/1958 : 869-873.
324. Schlegel, R. and H. Thrum (1968) Flavomycoin, ein Neues Antifungales Polyeneantibiotikum. Experientia 24(1) : 11-12.
325. Schlegel, R. and H. Thrum (1971) A New Polyene Antibiotic, Flavomycoin. Structural Investigations. II. J. Antibiot. 24(6) : 368-374.

326. Schmidt-Thomé, J., A. Steigler, L. Fries and H.-L. Weidenmüller["]
(to Farbwerke Hoechst Aktiengesellschaft) (1962) Herstellung des
Pilzwirksamen Antibiotikums >>G83<<. German Ausgelegeschrift
1,128,083 (April 19); Chem. Abstr. 57 : 17215d (1962).
327. Semenova, V. A., C. A. Ilinskaya, M. M. Taig, A. A. Melnikova, A.
N. Shneerson, I. S. Buynovskaya and N. M. Veselov (1963) A Study
of Certain Actinomycetes, Producers of Closely Related Antibiotics.
Antibiotiki 8(1) : 12-18.
328. Severinets, L. Ya., V. M. Efimova, L. O. Bol'shakova, A. I.
Karnaushkina, S. N. Solov'ev and A. N. Egorenkova (1970) Genimycin,
a Member of a New Group of Antifungal Pentaenic Antibiotics.
Antibiotiki 15(1) : 5-9; Chem. Abstr. 73 : 23876m (1970).
329. Severinets, L. Ya. and S. N. Solov'ev (1963) Xanthalycins A and
B--New Antibiotics. Materialy 3-ei Nauch., Sessi Leningrad.
Inst. Antibiotikov, Leningrad, Sb.-1963 : 82; Chem. Abstr. 61 :
11287b (1964).
330. Shenin, Yu. D., V. M. Efimova, T. V. Kotenko, V. A. Tsyganov and
A. N. Egorenkova (1969) Comparative Characterization of New
Strains of Actinomyces noursei. Mikrobiologiya 38(6) : 1027-
1031; Engl. transl.: 880-884.
331. Shenin, Yu. D., E. N. Sokolova and Yu. E. Konev (1970) Production
of a New Heptaenic Nonaromatic Antibiotic Tbilimycin by Act.
chartreusis var. tbilisus. Antibiotiki 15(1) : 9-14.

332. Shibata, M., M. Honjo, Y. Tokui and K. Nakazawa (1954) On a New Antifungal and Anti-Yeast Substance, Candimycin, Produced by a Streptomyces. J. Antibiot. (Japan) 7B(5) : 168.
333. Shibata, M., K. Tanabe, A. Miyake, Y. Tokui, S. Yoshishiro, J. Kaneko, S. Fujii, K. Oki, I. Tadokoro and K. Nakazawa (to Takeda Pharmaceutical Industries, Ltd.) (1956) Eurocydein, New Antibiotic. Japanese Patent 4995 (June 25); Chem. Abstr. 52 : 9529i (1958).
334. Shibata, M., H. Yamamoto, E. Higashide, K. Mizuno, M. Imanishi and A. Miyake (to Takeda Chemical Industries, Ltd.) (1972) Gangtokmycin and Production Thereof by Streptomyces gangtokensis. U.S. Patent 3,678,161 (July 18).
335. Shibata, M., K. Yamamoto, E. Toide, K. Mizuno, M. Imanishi and A. Miyake (to Takeda Chemical Industries, Ltd.) (1963) Antibiotic Preparation Method. Japanese Patent 2873 (October 24).
336. Shu, P. and F. Barbatschi (to American Cyanamid Company) (1971) Antifungals BK217 β and BK217 γ and Process for Producing Same. U.S. Patent 3,592,926 (July 13).
337. Siegel, E. B., P. B. Fisher, D. P. Bonner, W. Mechlinski, V. Bryson and C. P. Schaffner (1973) Studies of Amphotericin B Methyl Ester (AME) in Tissue Culture: 2. Comparative Toxicity of AME vs. Amphotericin B and Fungizone in Cultures of Human Embryonic Lung and Syrian Hamster Kidney. Program and Abstr., 13th Intersci. Conf. Antimicrob. Ag. Chemother., Washington, D.C., September 19-21, 1973 : Abstr. 266.

338. Siewert, G. and K. Kieslich (1971) Preparation and Ultraviolet Light-Induced Transformation of an Antifungal Mixture of Heptaene Antibiotics by Streptomyces surinam. Appl. Microbiol. 21(6) : 1007-1011.
339. Smeby, R. R., C. Leben, G. W. Keitt and F. M. Strong (1952) Production and Purification of the Antibiotic Helixin. Phytopathology 42(9) : 506-510.
340. Sobin, B. A., A. C. Finlay and J. H. Kane (to Chas. Pfizer & Co., Inc.) (1950) Terramycin and Its Production. U.S. Patent 2,516,080 (July 18).
341. Societ  Farmaceutici Italia (1956) "On Distamycin B." Italian Patent 18229/56 (December 12).
342. Societ  Farmaceutici Italia (1962) Nuovo Antibiotico, Suoi Derivati e Procedimento per la Loro Preparazione. Italian Patent 22651/62 (November 16).
343. Soeda, M. and H. Fujita (1959a) Studies on Akitamycin, an Antifungal Antibiotic. J. Antibiot. (Japan) 12B(4) : 293-294; Chem. Abstr. 54 : 14359i (1960).
344. Soeda, M. and H. Fujita (1959b) Studies on Akitamycin, an Antifungal Antibiotic. II. Mycological Study of Akitamycin-Producing Streptomyces. J. Antibiot. (Japan) 12B(4) : 295-296.
345. Soeda, M. and H. Fujita (1959c) On an Antifungal Antibiotic, Eurotin A. J. Antibiot. (Japan) 12B(5) : 368-370; Chem. Abstr. 54 : 16644g (1960).

346. Solov'ev, S. N. and L. Ya. Severinets (1965) Recovery, Properties, and Compounds of Antibiotic 1130/12. *Antibiotiki* 10(1) : 9-13; Chem. Abstr. 62 : 10720g (1965).
347. Steinman, I. D. (1958) Pigmentation in Selected Strains of Streptomyces with Particular Reference to Polyenes and Porphyrins. Thesis, Rutgers University, 258 pp.; Chem. Abstr. 53 : 18182i (1959); Diss. Abstr. 20 : 34-35 (1959).
348. Sternberg, T. H., E. T. Wright and M. Oura (1956) A New Antifungal Antibiotic, Amphotericin B. *Antibiot. Annu.* 1955/1956 : 566-573.
349. Sukharevich, V. I. and N. N. Shvetsova (1970) The Formation of a Heptaene and Pentaene by a Culture of Streptoverticillium mycoheptanicum No. 56 Depending on the Redox Potential of the Medium. *Tr. Leningrad. Sci. Res. Inst. Antibiot.* 6 : 181-183; *Biol. Abstr.* 52(12) : 66165 (1971).
350. Sukharevich, V. I., N. N. Shvetsova and E. P. Yakovleva (1970) Correlation Between Medium Redox Potential and Antibiotic Production by Streptoverticillium mycoheptanicum strain 56. *Antibiotiki* 15(11) : 981-985; *Biol. Abstr.* 52 : 66171 (1971).
351. Sukharevich, V. I., E. P. Yakovleva, V. A. Tsyganov and N. N. Shvetsova (1970) The Effect of Aeration and Redox Potential of the Medium on Biosynthesis of Levorins A and B. *Mikrobiologiya* 39(6) : 981-985; Engl. transl.; 864-868.

352. Sveshnikova, M. A., T. S. Maksimova, O. L. Olkhovatova, T. V. Tulyakova, M. F. Lavrova and I. A. Grishin (1973) Lienomycin Production by Actinomyces vendargensis Struyk et Stheeman 1957. Antibiotiki 18(2) : 99-105; Microbiol. Abstr. 8A(5) : Abstract 8A3268 (1973).
353. Swart, E. A., A. H. Romano and S. A. Waksman (1950) Fradycin, An Antifungal Agent Produced by Streptomyces fradiae. Proc. Soc. Exp. Biol. Med. 73(3) : 376-378.
354. Szabo, G. and T. P. Preobrazhenskaya (1962) The Characteristics of Three Strains of Actinomycetes, Producers of New Antibiotics. Antibiotiki 7(4) : 312-317.
355. Taber, W. A., L. C. Vining and S. A. Waksman (1954) Candidin, a New Antifungal Antibiotic Produced by Streptomyces viridoflavus. Antibiot. Chemother. 4(4) : 455-461.
356. Taguchi, H. (to Ono Pharmaceutical Co., Ltd.) (1960) Phaeochromin, an Agent Effective Against Candida. Japanese Patent 5295 (May 17); Chem. Abstr. 54 : 25560d (1960).
357. Taguchi, H. and A. Nakano (1957) Antibiotics Produced by Microorganisms. VI. The Antibiotics Produced by the Strain No. J-4. J. Ferment. Technol. 35 : 145-149; Chem. Abstr. 51 : 18101b (1957).
358. Takahashi, I. (1952) Studies on the Antibiotic Substances from Actinomyces, XX Anti-Yeast Factors Produced by the So-Called "First Group" Actinomyces. J. Antibiot. (Japan) 5(4) : 188-194.

359. Takahashi, I. (1953) A New Antifungal Substance "Flavacid."
Studies on the Antibiotic Substances from Actinomyces, XXVII.
J. Antibiot. (Japan) 6A(3) : 117-121.
360. Takemoto, K., H. Oya and K. Iwata (to Chugai Pharmaceutical Co.,
Ltd.) (1964) Preparation of a New Antibiotic. Japanese Patent
7394 (May 14); Chem. Abstr. 62 : 8355e (1965).
361. Tanaka, K. (to Ono Pharmaceutical Industry Co.) (1960) Moldicidin
(sic), Onomycin-I, and Arvomycin, Antibiotic Substances. Japanese
Patent 13896 (September 21); Chem. Abstr. 55 : 15828b (1961).
362. Tanner, F. W., B. K. Koe, L. G. Nickell, III and W. S. Marsh (to
Chas. Pfizer & Co., Inc.) (1958) Herstellung der Antibiotisch
und Fungicid Wirkenden Verbindung Nr. 616. German Patentschrift
1,021,132 (June 4); Chem. Abstr. 54 : 23177f (1960).
363. Tanner, F. W., Jr., B. K. Koe, L. G. Nickell and W. S. Marsh (to
Chas. Pfizer & Co., Inc.) (1961) Antibiotic from Streptomyces
fasciculus. Canadian Patent 613,257 (January 24).
364. Tanner, F. W., Jr., B. K. Koe, L. G. Nickell, III and W. S. Marsh
(to Chas. Pfizer & Co., Inc.) (1961) Antibiotic Agents. Canadian
Patent 619,094 (April 25).
365. Thirumalachar, M. J. (to Hindustan Antibiotics Limited) (1966)
Process of Producing Hamycin Antibiotic and Product Produced.
U.S. Patent 3,261,751 (July 19).
366. Thirumalachar, M. J. (1970) A New Antifungal-Antiprotozoal Antibiotic.
Abstr., Xth Int Congr. Microbiol., Mexico, D. F., 1970 : 149;
Abstract Ia-3.

367. Thirumalachar, M. J. (1971) New Antifungal-Antiprotozoal Antibiotic. Hindustan Antibiot. Bull. 13(3/4) : 98-101; Chem. Abstr. 75 : 108454p (1971).
368. Thirumalachar, M. J. and S. K. Menon (1962) Dermostatin, a New Antifungal Antibiotic. I. Microbiological Studies. Hindustan Antibiot. Bull. 4(3) : 106-108; Chem. Abstr. 57 : 5121c (1962).
369. Thirumalachar, M. J., S. K. Menon and V. V. Bhatt (1961) Hamycin, a New Antifungal Antibiotic. I. Discovery and Biological Studies. Hindustan Antibiot. Bull. 3(4) : 136-138.
370. Thirumalachar, M. J. and P. W. Rahalkar (1970) Pentaene Antibiotics from Some Streptoverticillium Species in India. Progr. Antimicrob. Anticancer Chemother. Proc. 6th Int. Congr. Chemother., Tokyo, Japan, 1969, I : 70-73.
371. Thirumalachar, M. J. and P. W. Rahalkar (1971) Hexin, an Undescribed Hexaene Antibiotic. Hindustan Antibiot. Bull. 14(2) : 75-78.
372. Thirumalachar, M. J., P. W. Rahalkar, R. S. Sukapure and K. S. Gopalkrishnan (1964) Aureofungin, a New Heptaene Antibiotic. I. Microbiological Studies. Hindustan Antibiot. Bull. 6(3) : 108-111; Chem. Abstr. 64 : 7077c (1966).
373. Thirumalachar, M. J., S. Ramachandran, P. W. Rahalkar and A. A. Padhye (1966) Neoheptaene, a New Antifungal Antibiotic. Abstr. Papers to be Presented at Focal Topic Sessions. IXth Int. Congr. Microbiol., Moscow, U.S.S.R., July 24-30, 1966; 170. Abstract B4/11.

374. Thirumalachar, M. J., S. B. Sethna, P. W. Rahalkar, A. P. Wagle and A. Subramanyam (1972) In Vitro Activity of Hamamycin with Reference to Its In Vivo Effect in Treatment of Systemic Mycosis. Hindustan Antibiot. Bull. 14(3) : 123-126; Microbiol. Abstr. 8A(2); Abstract 8A1438 (1973).
375. Thompson, R. Q., M. M. Hoehn and C. E. Higgins (1962) Crystalline Antifungal Antibiotic Isolated from a Strain of Streptomyces rutgersensis. Antimicrob. Ag. Chemother. 1961 : 474-480.
376. Thrum, H. (1959) Eine Neues, von einer Spezies der Streptomyces-reticuli-Gruppe Gebildete Antibiotikakombination. Naturwissenschaften 46 : 87.
377. Thrum, H. (1960a) Metabolic Products and Antibiotics from Streptomyces I A 2814, a Strain of Streptomyces reticuli. Planta Med.. 8 : 376-382.
378. Thrum, H. (1960b) Über die von einer Streptomyces reticuli-- Spezies Gebildeten Antibiotika. Proc. 4th Int. Congr. Biochem., Vienna, Austria, September 1-6, 1958. Section 10. Biochemistry of Microorganisms; Industrial Fermentations: 137. Abstract 10-103.
379. Thrum, H. and I.-d. Dcho (1960) Die Antibiotika 2814 P und 2814 H, Zwei Neue Antifungale Polyen-Antibiotika. Naturwissenschaften 47 : 474.
380. Thrum, H., R. Schlegel, K. Dornberger and C. Schonfeld (1970) Biological and Chemical Characterization of the New Antibiotics Flavomycoin and Tetramycin. Progr. Antimicrob. Anticancer Chemother., University of Tokyo Press, Tokyo, Japan, I: 75-76.

381. Tokhtamuratov, E. and A. B. Silaev (1965) Recovery and Purification of Antibiotics Produced by Act. tumemacerans. Antibiotiki 10(1) : 30-33; Chem. Abstr. 62 : 16915d (1965).
382. Tokhtamuratov, E. and A. B. Silaev (1967) Biosynthesis Conditions of Tetraenic Antibiotics 18-45 and 18-80 and Heptaene Antibiotic 2368. Antibiotiki 12(10) : 887-892; Chem. Abstr. 68 : 20874v (1968).
383. Tokhtamuratov, E., A. B. Silaev and S. M. Khodzhibaeva (1964) Isolation of an Antitumor Substance from the Culture Fluid of Actinomyces tumemacerans P42. Antibiotiki 9(3) : 205-208; Chem. Abstr. 61 : 8643a (1964).
384. Trejo, W. H. and R. E. Bennett (1963) Streptomyces nodosus sp. n. the Amphotericin-Producing Organism. J. Bacteriol. 85(2) : 436-439.
385. Tsai, J.-s., K.-p. Chu, S.-l. Yang and K.-t. Tsao (1965) Biological Degradation of Aromatic Compounds by a Fungicidin-Producing Organism, Actinomyces aureus. Scientia Sinica 14(6) : 891-900; Chem. Abstr. 63 : 6040g (1965).
386. Tsai, J.-c., C.-c. Pao, S.-y. Wu, L.-c. Shen and B.-y. Gang (1960) The Types of Polyene Antibiotics Produced by Actinomycetes Isolated from the Soils of Southern China. In: Státní Zdravotnické Nakladatelství, Herold, M. and Gabriel, Z. (eds.), Proc. Symp. Antibiot., Prague, Czechoslovakia, May 18-23, 1959: 77.

387. Tsai, Y.-s., S.-y. Yu, L.-c. Sheng, S.-f. Lan, C.-c. P'ao and P.-y. Kan (1959) Fungicidin (Nistatin) Produced by a New Strain Actinomyces A-94, Separated from the Soil of China. Antibiotiki 4(2) : 3-5; Chem. Abstr. 53 : 22234i (1959).
388. Tsyganov, V. A. (1970) A Characterization of the Producer of Levorin, Actinomyces Levoris, and Its Antibiotic Features. Tr. Leningrad. Sci. Res. Inst. Antibiot. 5 : 7-10; Biol. Abstr. 52(12) : 66167 (1971).
389. Tsyganov, V. A., N. P. Barashkova and Yu. D. Shenin (1972) Plumbomycins A and B, New Tetraen Antibiotics Produced by Actinomyces plumbeus sp. n. Antibiotiki 17(6) : 483-488.
390. Tsyganov, V. A., L. O. Bolshakova and N. P. Barashkova (1973) Tetramedin, a New Tetraene Antibiotic Produced by Act. mediocidicus. Antibiotiki 18(3) : 195-199.
391. Tsyganov, V. A., L. O. Bol'shakova, S. N. Solov'ev and M. A. Malyshkina (1970) Hepcin, a New Heptaene Formed by Actinosporangium griseoroseum. Antibiotiki 15(11) : 963-966; Chem. Abstr. 74 : 139477g (1971).
392. Tsyganov, V. A., P. N. Golyakov, A. M. Bezbosodov, V. P. Namestnikov, G. V. Khapko, S. N. Solov'ev, M. A. Malyshkina and L. O. Bol'shakova (1959) Antifungal Antibiotics I. On the Antifungal Antibiotic 26/I; Its Biology and Isolation. Antibiotiki 4(1) : 21-26.

393. Tsyganov, V. A., P. N. Golyakov, M. A. Malyshkina, M. V. Fursenko and A. I. Filippova (1963) Characteristics of Antibiotics Produced by Actinomyces levoris. Antibiotiki 8(1) : 29-33.
394. Tsyganov, V. A., P. N. Golyakov, Yu. E. Konev and V. M. Efimova (1964a) Actinomycete Producing Pentaene Antibiotics. Mikrobiologiya 33(1) : 152-161; Engl. transl. 130-137.
395. Tsyganov, V. A., P. N. Golyakov, S. N. Soloviev, B. G. Byelenky and A. I. Filippova (1960) The Characteristics of Some Polyene Antibiotics and of Their Producers. In: Státní Zdravotnické Nakladatelství, Herold, M. and Gabriel, Z. (eds.), Proc. Symp. on Antibiotics, Prague, Czechoslovakia, May 18-23, 1959 : 75-76.
396. Tsyganov, V. A., Yu. E. Konev, M. V. Fursenko, E. I. Iofina, M. M. Al'bert, N. N. Mustafafova, I. B. Venkova, S. N. Solov'ev, M. A. Malyshkina, N. P. Bogdanova, T. V. Kotenko and A. I. Filippova (1964b) Isolation and Characterization of Actinomycetes Producing the Antibiotic Trichomycin. Antibiotiki 9(4) : 291-296; Chem. Abstr. 61 : 2111a (1964); Biol. Abstr. 46 : 3263 (1965).
397. Tsyganov, V. A., Yu. E. Konev and V. P. Namestnikova (1965) Characteristics of Actinomycete 44 B/1, Producing Mycoheptin a New Antifungal Antibiotic. Antibiotiki 10(7) : 599-602; Biol. Abstr. 47 : 53330 (1966).
398. Tsyganov, V. A., A. F. Morgunova, Yu. E. Konev, S. N. Soloviev and M. A. Malyshkina (1972) Cryptomycin, a New Heptaene Antibiotic Produced by Actinomyces bulgaricus. Antibiotiki 17(12) : 1067-1072; Microbiol. Abstr. 8A(4) : 8A3001 (1973).

399. Tytell, A. A., F. J. McCarthy, F. J. Fisher, W. P. Bolhofer and J. Charney (1955) Fungichromin and Fungichromatin: New Polyene Antifungal Agents. *Antibiot. Annu.* 1954/1955 : 716-718.
400. Ueda, M. and H. Umezawa (1956) Observation on the Simultaneous Production of Actinoleukin and Trichomycin Group Antibiotic by a Streptomyces. *J. Antibiot. (Japan)* 9A(2) : 86-87.
401. Uma, B. N. (1961) Formation of Champamycin-B by Streptomyces champavatii. Ph.D. Thesis, Indian Institute of Science, Bangalore, India.
402. Uma, B. N. and P. L. N. Rao (1959) Actinomycetes. I. Distribution of Streptomycetes in Indian Soils. Formation of Antifungal Antibiotics by Streptomyces champavati. *Indian Inst. Sci. Golden Jubilee Res. Vol.* 1909-1959 : 130-141; *Chem. Abstr.* 55 : 19086f (1961).
403. Umezawa, H. and M. Nagase (to Japanese Scientific Council for Antibiotic Substances) (1959) Yunamycin, a New Antifungal Substance. Japanese Patent 3392 (May 7); *Chem. Abstr.* 53 : 20708d (1959).
404. Umezawa, H., Y. Okami, T. Hashimoto, Y. Suhara, M. Hamada and T. Takeuchi (1965) A New Antibiotic, Kasugamycin. *J. Antibiot. (Japan)* 18A(2) : 101-103.
405. Umezawa, H., Y. Okami and R. Kihara (to Nippon Conference of Antibiotics) (1955) Mediocidin, a New Antibiotic. Japanese Patent 9150 (December 15); *Chem. Abstr.* 52 : 14100i (1958).

406. Umezawa, H., Y. Okami, T. Takeuchi and M. Hamada (1967) Antibiotic Kasugamycin. U.S. Patent 3,358,001 (December 12).
407. Umezawa, H., Y. Okami and R. Utahara (to Nippon Conference of Antibiotics) (1956) Antibiotic Substance from Streptomyces fungicidicus. Japanese Patent 5744 (July 14); Chem. Abstr. 52 : 9530 (1958).
408. Umezawa, H., T. Takeuchi, Y. Okami and M. Hamada (to Microbial Chemistry Research Foundation, Japan) (1966) Preparation of a New Antibiotic Kasugamycin. Japanese Patent 21,757 (December 19); Chem. Abstr. 67 : 54259x (1967).
409. Umezawa, S. (1957) II. Research Concerning Antimicrobial Materials. 7. New Actinomycete (S. pentaticus). Proc. 65th Meet. Japan Antibiotics Research Assoc., April 1957; J. Antibiot. (Japan) 10B(5) : 221. Abstract.
410. Umezawa, S., Y. Tanaka, M. Ooka and S. Shiotsu (1958) A New Antifungal Antibiotic, Pentamycin. J. Antibiot. (Japan) 11A(1) : 26-29.
411. Umezawa, S., M. Ooka and S. Shiotsu (to Research Institute of Nihon Seibutsu-Kagaku, Ltd.) (1959) Method for Extraction and Purification of New Antibiotic, Pentamycin. Japanese Patent 6000 (July 7).
412. Uri, J. and I. Békési (1958) Flavofungin, a New Crystalline Antifungal Antibiotic: Origin and Biological Properties. Nature 181 : 908.
413. Uri, J., R. Bogner, I. Békési and B. Varga (1958) Desertomycin, a New Crystalline Antibiotic with Antibacterial and Cytostatic Action. Nature 182 : 401-402.

414. Uri, J., I. Szilagyi and I. Békésy (1960) Grubilin, a New Heptaene Antifungal Antibiotic. In: Státní Zdravotnické Nakladatelství, Herold, M. and Gabriel, Z. (eds.), Proc. Symp. on Antibiotics, Prague, Czechoslovakia, May 18-23, 1959 : 78.
415. Utahara, R., Y. Okami, S. Nakamura and H. Umezawa (1954) On a New Antifungal Substance, Mediocidin, and Other Antifungal Substances of Streptomyces with Three Characteristic Absorption Maxima. J. Antibiot. (Japan) 7A(4) : 120-124.
416. Utahara, R., H. Yamazaki, Y. Okami and H. Umezawa (1959) A New Source of Fradycin-Mycelin Like Antifungal Antibiotic. J. Antibiot. (Japan) 12A : 73-74.
417. Vandeputte, J. (to E. R. Squibb & Sons, Inc.) (1973) Borate Complex of Polyene Macrolide Antibiotics. U.S. Patent 3,740,424 (June 19).
418. Vetlugina, L. A. (1968) Antibiotic Roseofungin, Its Isolation and Physicochemical Properties. Antibiotiki 13(11) : 992-997; Chem. Abstr. 70 : 44189t (1969).
419. Vetlugina, L. A., R. M. Dzyubanova and M. V. Goloskova (1968) Separation and Chemical Purification of the Antibiotic Roseofungin. Izv. Akad. Nauk Kaz. SSR Ser. Biol. 6(6) : 32-37; Chem. Abstr. 71 : 15977p (1969).
420. Vining, L. C. (1960) The Polyene Antifungal Antibiotics. Hindustan Antibiot. Bull. 3(2) : 37-54.
421. Vining, L. C. and W. A. Taber (1957) Separation of Endomycins A and B and Their Identification as Members of the Polyene Group of Antifungal Antibiotics. Can. J. Chem. 35 : 1461-1466.

422. Wagman, G. H., R. T. Testa, M. Patel, J. A. Marquez, J. A. Waitz and M. J. Weinstein (1974) Sch 16656, a Novel Polyene Antifungal Antibiotic from a New Species of Actinoplanes. Program Abstr. 14th Intersci. Conf. Antimicrob. Ag. Chemother. : Abstract 196.
423. Wakaki, S., S. Abe, K. Hamada and I. Kurikara (1951) Antifungal Substances Produced by Actinomyces, I. On the Morphology of Antifungal-Substance-Producing Strains. J. Antibiot. (Japan) 4(6) : 357-362.
424. Wakaki, S., S. Akanabe, K. Hamada and T. Asahina (1952) Antifungal Substances Produced by Actinomyces. Antibiotics from Strain C-6. J. Antibiot. (Japan) 5(12) : 677-681.
425. Wakaki, S., K. Hamada, S. Akanabe and T. Asahina (1953) Studies of the Antifungal Antibiotic from Streptomyces, IV. On the Physico-Chemical Properties of Chromin. J. Antibiot. (Japan) 6B(5) : 247-253.
426. Waksman, S. A. and H. A. Lechevalier (to Rutgers Research and Educational Foundation) (1961) Candicidin and Process of Preparation. U.S. Patent 2,992,162 (July 11).
427. Waksman, S. A., H. A. Lechevalier and C. P. Schaffner (1965) Candicidin and Other Polyenic Antifungal Antibiotics. Bull. WHO 33 : 219-226.
428. Warren, J. R., F. Graham and G. Gale (1951) Dominance of an Actinomycete in a Soil Microflora after 2,4-D Treatment of Plants. Phytopathology 41 : 1037-1039.

429. Washida, K. (1953) Studies on the Antifungal Substances Extracted from the Mycelia of Streptomyces (1st Report). Rep. Inst. Putrefaction Res., Chiba Univ. 6 : 109-118.
430. Wasserman, H. H., J. E. Van Verth, D. J. McCaustland, E. J. Borowitz and B. Kamber (1967) The Mycotocins, Polyene Macrolides from Streptomyces ruber. J. Am. Chem. Soc. 89(6) : 1535-1536.
431. Whitfield, G. B., T. D. Brock, A. Ammann, D. Gottlieb and H. E. Carter (1955) Filipin, an Antifungal Antibiotic: Isolation and Properties. J. Am. Chem. Soc. 77(18) : 4799-4801.
432. Wilson, G. B. (1950) Cytological Effects of Some Antibiotics. J. Hered. 41 : 226-231; Chem. Abstr. 45 : 1210d (1951).
433. Wooldridge, W. E. (1960) Antifungal Antibiotic from S. coelicolor var. aminophilus. U.S. Patent 2,956,925 (October 18).
434. Yajima, T. (1955) On the Classification of Antifungal Antibiotics. J. Antibiot. (Japan) 8A(6) : 189-195.
435. Yamaguchi, T. (1954) Studies on the Antibiotic Substance-Producing Strains. H-2075, H-2609 (S. hachijoensis nov. sp.) and H-3030. J. Antibiot. (Japan) 7A(1) : 10-14.
436. Zurabova, E. R. and A. G. Romankova (to Leningrad Scientific-Research Institute of Antibiotics) (1970) Actinomyces Strain for Producing Levorin and Levoristatine. French Patent 1,600,532 (September 4); Chem. Abstr. 74 : 86385s (1971).

